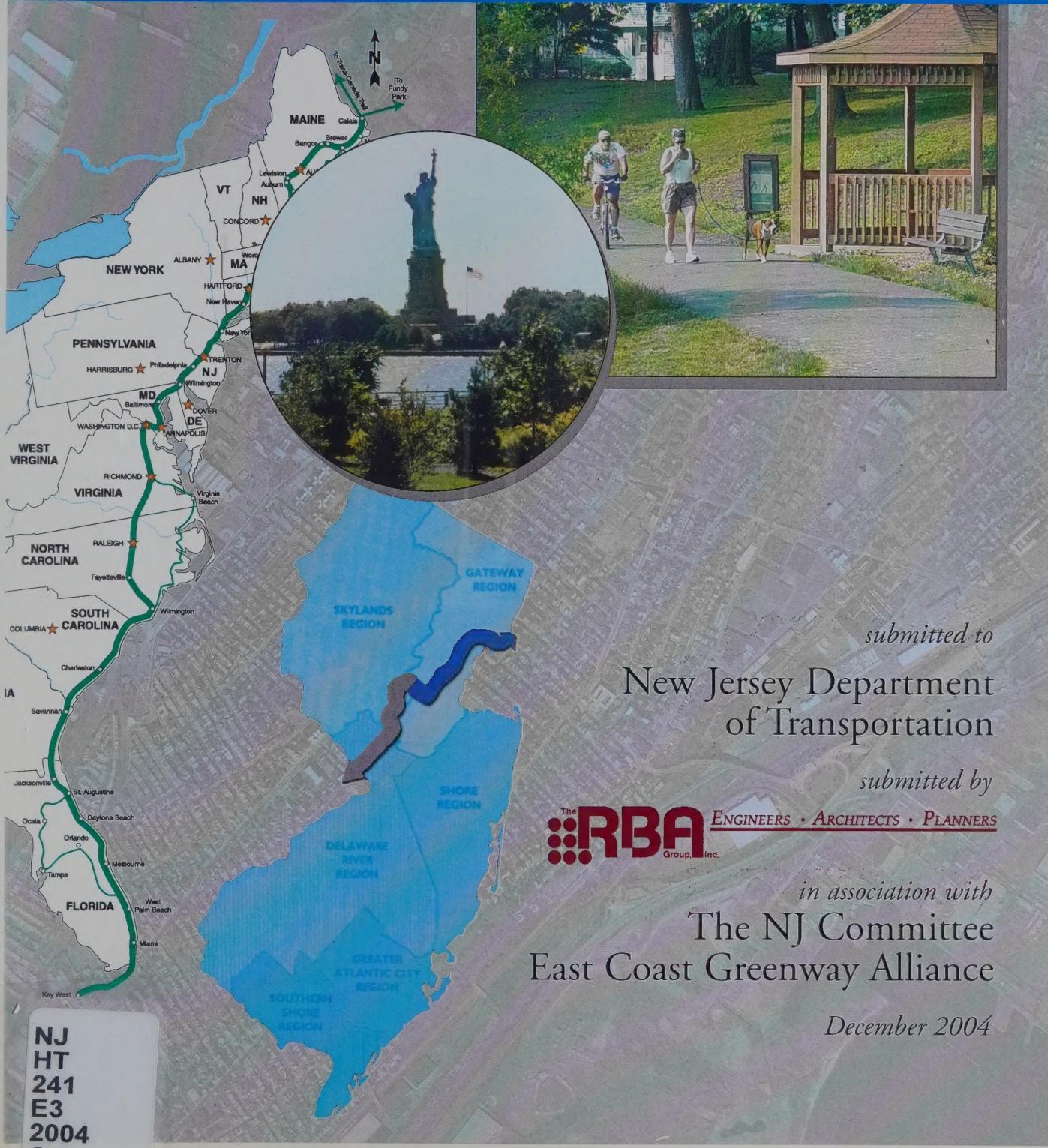




# East Coast Greenway

## Northern New Jersey Route Location Study

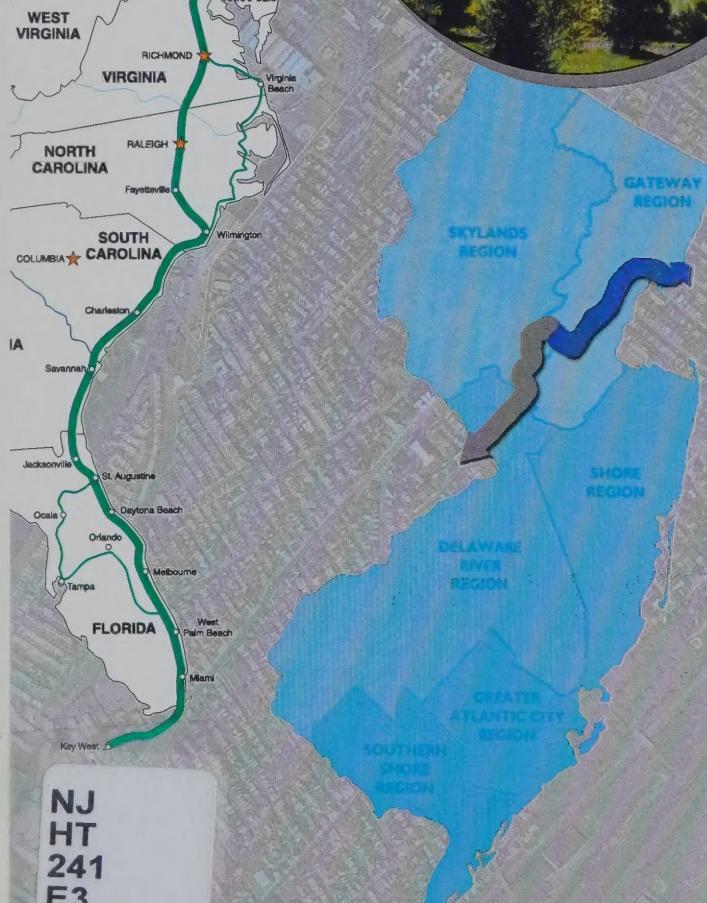






# East Coast Greenway

## Northern New Jersey Route Location Study



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2004  
C.1

*submitted to*

New Jersey Department  
of Transportation

*submitted by*

**RBA** Group, Inc.  
*The* **RBA** ENGINEERS • ARCHITECTS • PLANNERS

*in association with*

The NJ Committee  
East Coast Greenway Alliance

*December 2004*





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## Acknowledgments

The Office of Bicycle and Pedestrian Programs of the New Jersey Department of Transportation (NJDOT) funded this Study to provide technical assistance to the New Jersey Committee for the East Coast Greenway. The RBA Group conducted the Study with planning assistance from a Study Advisory Committee, representing both governmental and non-profit stakeholders, as follows:

David Antonio	Principal Transportation Planner	City of Newark
Elizabeth Brody	Chairperson	NJ Committee for the East Coast Greenway
Sheree Davis	Section Chief	Office of Bicycle and Pedestrian Programs, NJDOT
Anthony Gambilonghi <i>(Alternate)</i>	Supervising Planner	Middlesex County Planning Dept.
Caroline Granick	Planner	Middlesex County Planning Dept.
Steve Jandoli	Green Acres Program	NJ Dept. of Environmental Protection
Mike Kruimer	President	Central NJ Bicycle Club
Sean Ryan	Assistant Park Planner	County of Union
Tom Sexton	Field Office Director	Rail Trail Conservancy
Celeste Tracy	Trails Coordinator	Delaware River Heritage Trail
Mariano Vega	Director of Public Resources	Hudson County

Study Committee members – and their representative organizations - provided critical guidance in the route selection process, with the result that the recommended alignment complements both existing and planned bicycle and pedestrian facilities.

Under the effective leadership of Elizabeth Brody (Study Advisory Committee), the membership of the New Jersey Committee for the East Coast Greenway also participated in the study process, generously volunteering time to share ideas, information, photos and contacts, and, in some cases, to guide the consulting team on investigative field visits.

Special acknowledgements are also given to the national East Coast Greenway Alliance (ECGA) for their cooperation and support. Director Karen Votava and staff member Eric Weis were especially helpful in reviewing study results and ensuring compliance with ECGA's standards and protocols. Trustee Mike Kruimer (Study Advisory Committee), who has served on the ECGA Board from its inception, deserves special recognition for his tireless commitment and outstanding generosity in providing whatever was needed, large or small, without prompting and with good humor.

Hundreds of people beyond those specifically mentioned here have helped to identify, refine, confirm, and advocate for the East Coast Greenway route through northern New Jersey. The consulting team wishes to thank all who have played a role in the study and have supported this exciting initiative.

The RBA Group has been pleased to have participated in the planning process, as led by Annette Schultz and Mike Dannemiller, to complete the East Coast Greenway.





# East Coast Greenway

## Northern New Jersey Route Location Study

This Executive Summary profiles the results from the East Coast Greenway Northern Route Location Study that was conducted by the New Jersey Department of Transportation, with consultant services from The RBA Group, and with planning assistance from the NJ Committee for the ECG.

### Executive Summary

May 2004

#### The East Coast Greenway

The East Coast Greenway (ECG) will be a long-distance, city-to-city, multi-modal transportation corridor for cyclists, walkers, and other non-motorized users. The goal is to connect existing and planned trails that are locally-owned and managed to form a continuous, safe, green route — easily identified by the public through signage, maps, user guides, and visitor support services. The Greenway will be a 2,600-mile path linking East Coast cities from Maine to Florida, attracting residents and visitors alike.

The New Jersey portion of the Greenway, when complete, will cover 92 miles between Pennsylvania and New York. It will pass through major urban areas — Trenton, Princeton, New Brunswick, Newark and Jersey City — as well as rural and suburban New Jersey. This study identifies a 64-mile route through 5 counties and 22 municipalities connecting the existing Delaware and Raritan River (D&R) Canal Towpath in South Bound Brook to the Hudson River Walkway with access to New York via multiple ferries. This will complement the existing 28-mile off-road segment along the D&R Canal Towpath.

The route recommended in this project completes a continuous route across New Jersey for the national East Coast Greenway Alliance (ECGA), the overall coordinating national non-profit organization.

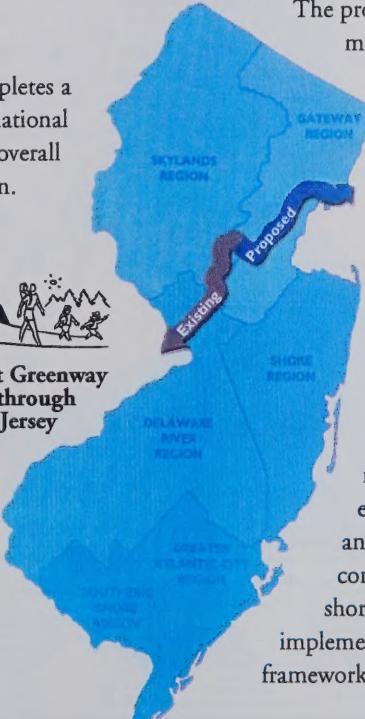
The route meets ECGA's goal to maximize off-road routing by offering a route more than 80 percent on traffic-separated trails.

#### Who Will Use the Greenway

Users will include children walking to school, commuters cycling to work, families enjoying a weekend outing, and tourists seeing the sights in a leisurely and low-impact manner.



East Coast Greenway Route through New Jersey



#### How the Greenway Will Benefit Our Communities

- By providing access to communities and their services, the Greenway offers economic benefits to towns and cities along the route.
- By connecting residential areas with schools, parks, businesses, downtowns, public attractions and transit stations, the Greenway gives local residents more opportunities for non-motorized local travel.
- By offering an alternative to driving on streets, the Greenway reduces roadway congestion.
- By offering walkers, cyclists, skaters and others an alternative to on-road travel, the Greenway promotes public safety and reduces roadway crashes.
- By offering an easily-accessed facility for exercise, the Greenway offers health benefits to local citizens.

#### Selecting the Route through Northern New Jersey

The proposed route has been identified on the basis of many kinds of research. The preliminary choices were based on ECGA's route evaluation criteria. Then field investigations, a review of currently proposed trail projects, and Geographic Information System mapping contributed toward the selection of a primary route. Interviews and meetings with county and local stakeholders were key in gaining the local knowledge needed to define an alignment and build consensus for the Greenway.

The study analyzed the conditions along the route to determine which segments already exist, which segments are under development, and which segments need to be built to provide a continuous route. Finally, the study developed short, medium and long-term timelines for implementing the recommended route to establish a framework for funding needs and route completion.







**Map (1)** depicts the proposed East Coast Greenway spine route as it would appear upon completion.

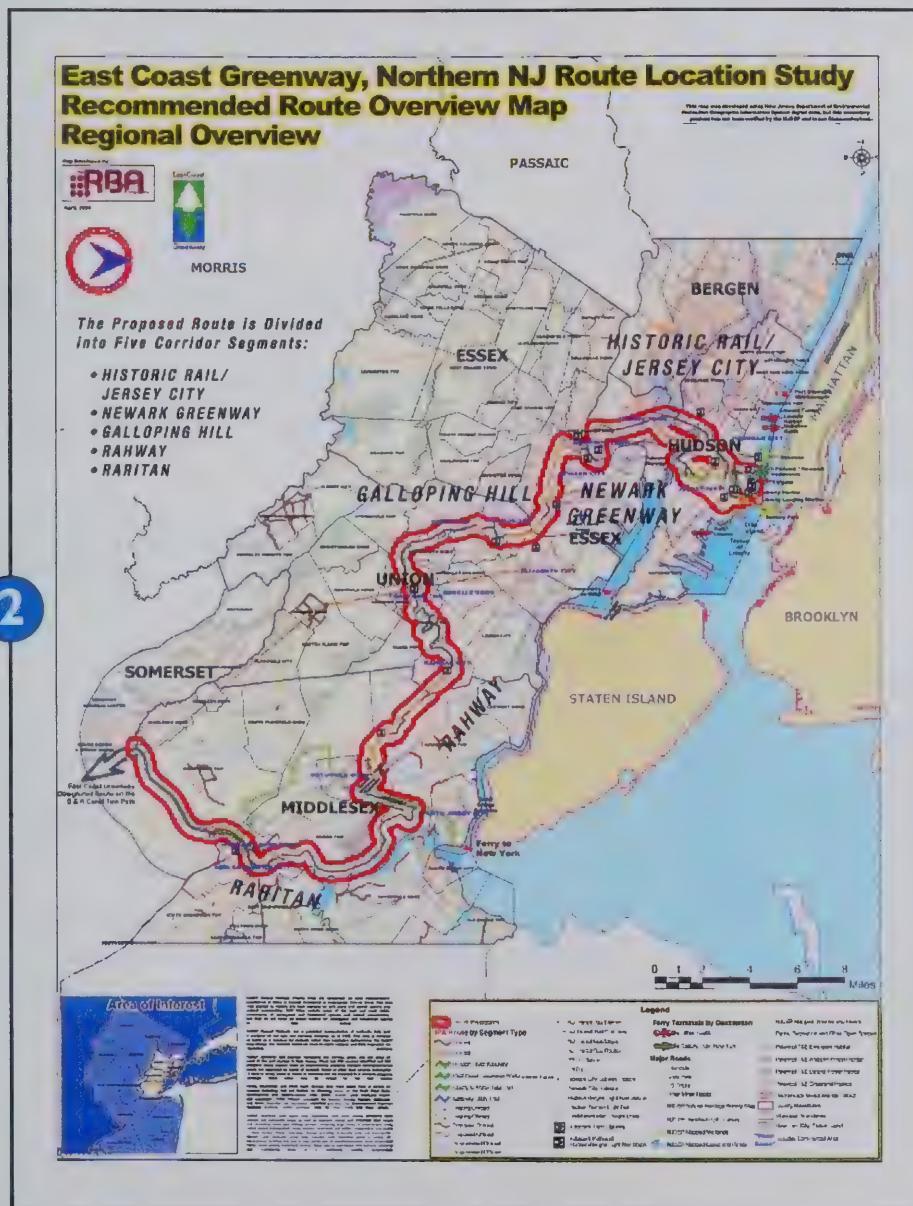
**Map (2)** provides a regional overview of the proposed Greenway route through northern New Jersey. The route was divided into five segments with descriptive names as part of the planning process.

This route is the product of input from hundreds of stakeholders, dozens of meetings, and a yearlong site investigation process. Refinement of the Greenway route is expected to continue over time to meet local needs and to capture future opportunities.



## The Greenway Route through New Jersey

New Jersey boasts the first ever trail segment designated as the East Coast Greenway: the 28-mile D&R Canal Towpath that stretches between Trenton, Mercer County, and South Bound Brook, Somerset County. It is from the Towpath in South Bound Brook that the study's proposed route extends 64 miles to Liberty State Park in Jersey City, Hudson County.



The route follows the Raritan River across Middlesex County before turning north to continue along the Rahway River corridor in Union County, linking parks and open space along the way. At Lenape Park, the Greenway curves east, crosses several parks and enters Essex County through Weequahic Park. The route then passes through the City of Newark and crosses the Passaic River at the Jackson Street Bridge into Harrison, Hudson County. The Greenway crosses the Meadowlands and the Hackensack River, and then passes through Jersey City to reach the Hudson River Walkway, where ferry service to New York City is available.

An interim mostly on-road route that closely parallels the long-term off-road alignment shown here is being established for use until the preferred alignment is open for public use.







### Route Evaluation Criteria

Key elements of the criteria for choosing a preferred route through New Jersey include the following:

- *The Greenway will be off-road as much as possible, with on-road connections appropriate for bicyclists and walkers.*
- *The Greenway will "piggyback" along existing and proposed trails.*
- *The Greenway will provide access to the centers of cities and will link with key transportation nodes.*
- *The Greenway will provide a varied experience of New Jersey's landscapes, with the potential for connections to area attractions.*

The study's proposed route is successful in meeting the criteria, with more than 80 percent of the route potentially off-road. The Greenway provides connections between town centers, transit stations and visitor attractions, as well as linking parks and open space. The route also provides access to Amtrak stations in Metropark and Newark. Approximately 62 percent of the route incorporates open space and trail facilities that are either existing or are proposed in regional, county or municipal plans.

### Representative Existing Facilities:

D&R Canal Towpath, Johnson Park path, Rahway River Parkway, Hudson River Waterfront Walkway.

### Representative Planned Projects:

Raritan River Seaport Trail, Route 1 Utility Corridor, Middlesex Greenway, Union County Greenway, Newark Greenway, Bergen Arches, Harsimus Embankment

### Facility Types along the East Coast Greenway

The East Coast Greenway is, ideally, an off-road facility with on-road and sidewalk connections only where necessary. A paved or firm trail surface will accommodate multiple users, including road bicycles, wheelchairs and walkers. On-road bicycle facilities and sidewalks will provide for safe bicycling and walking.

### Examples of Facility Types:



Photo courtesy of Jack Maieren

#### Shared Use Path

Typically 10-12 feet wide, a paved or stone-dust shared use path is separate from roadways and provides valuable connections to popular destinations.



#### Bike Lane and Sidewalk

A striped and signed bike lane defines roadway space for bicyclists. Sidewalk serves pedestrians.



#### Bike Route/Shared Road and Sidewalk

Traveling along a signed bike route, bicyclists share the road or shoulder.





### Completion of the East Coast Greenway



New Jersey, the total length is 92 miles, of which an estimated 77 miles is potentially off-road. Although a few sections of the off-road trail may require long-term (10-20 year) implementation, many sections are either in use today or could be completed within the next five years. An interim route with on-road segments will be identified by the end of 2004.



### How the New Jersey Portion of the Greenway Will Be Built



Municipal, county, and state governments are working together to link existing trails and open spaces by converting unused railroad corridors, canal towpaths, parkland, and other linear spaces. Funding comes from many sources, including state and federal transportation budgets; over \$600 million has been invested nationally to date.

Counties, municipalities, volunteers, local "Friends" groups, and others also contribute time and money towards trail planning, development and maintenance.



Nationally, it is anticipated that the Greenway will be substantially complete as an off-road route by 2010. Currently, 20 percent is complete and an additional 40 percent is under development. In

implementation, many sections are either in use today or could be completed within the next five years. An interim route with on-road segments will be identified by the end of 2004.



### The East Coast Greenway will go through...

#### Mercer County

Trenton  
Lawrence  
Princeton Twp.

#### Somerset County

South Bound Brook  
Franklin Twp.

#### Middlesex County

South Brunswick  
Plainsboro Twp.  
New Brunswick  
Piscataway  
Highland Park  
Edison  
Woodbridge

#### Union County

Rahway  
Clark  
Winfield  
Cranford  
Springfield  
Union Twp.  
Kenilworth  
Hillside  
Elizabeth

#### Essex County

Newark

#### Hudson County

Harrison  
East Newark  
Kearny  
Secaucus  
Jersey City

### NJ ECG Attractions and Destinations

**Major Cities:** Newark, Jersey City, Trenton and New Brunswick

**Universities:** Rutgers University, Princeton University, Kean University, NJ Institute of Technology, University of Medicine and Dentistry of NJ

**Large Parks:** Johnson Park, Roosevelt Park, Merrill Park, Nomahegan Park, Weequahic Park, Meadowlands State Wildlife Preserve, Liberty State Park.

**Historic Landmarks:** Statue of Liberty, Ellis Island, Harsimus Embankment, Liberty Hall Museum, Edison Tower, Princeton Battlefield State Park, D&R Canal Towpath

**Entertainment:** NJ Performing Arts Center, Liberty Science Center, Newark Museum, Newark Riverfront Stadium, Trenton Thunder's Stadium, NJ War Memorial Auditorium

**Major Waterways:** Hudson River, Delaware River, Hackensack River, Passaic River, Raritan River and Rahway River

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ECG New Jersey site:  
[www.greenwaynj.org](http://www.greenwaynj.org)





### Chapter 1: The East Coast Greenway Through Northern New Jersey

#### Introduction



The East Coast Greenway (ECG) will be a long-distance, city-to-city, multi-modal transportation corridor for cyclists, walkers, and other non-motorized users. The goal is to connect existing and planned trails that are locally-owned and managed to form a continuous, safe, green route -- easily identified by the public through signage, maps, users guides, and common services. In total the Greenway will be a 2,600-mile path linking East Coast cities from Maine to Florida, with 92 miles through New Jersey, attracting residents and visitors alike.

New Jersey boasts the first ever trail segment officially designated as ECG, twenty-eight miles of the Delaware & Raritan (D&R) Canal Towpath between Trenton in Mercer County and South Bound Brook in Somerset County. The ECG is planned to continue southwest of Trenton, crossing the Delaware River to Pennsylvania. The goal of this study is to identify a route northeast, from the D&R Canal Towpath in South Bound Brook to New York City. A critical objective is to include New Jersey's largest cities, the Cities of Newark and Jersey City, as key destinations along the ECG.

The East Coast Greenway is, ideally, an off-road facility with on-road bicycle and sidewalk connections only where necessary. A paved or firm trail surface will accommodate multiple users, including road bicycles and walkers. On-road bicycle facilities and sidewalks will provide for safe bicycling and walking linkages. An estimated 81 percent of the study's proposed route would be off-road, or 52 of the nearly 64 miles of the ECG through the study area.



The East Coast Greenway Northern New Jersey Route Location Study was funded by NJDOT to provide planning and technical assistance to the New Jersey Committee for the East Coast Greenway, a Chapter of the East Coast Greenway Alliance (ECGA). The ECGA, a national non-profit organization, plays an essential role in making the East Coast Greenway a reality.



# East Coast Greenway in New Jersey

East Coast



Greenway.  
ALLIANCE

## Proposed Route

Jersey City to South Bound Brook

Alternate Route

## Existing Route

South Bound Brook to Trenton  
along the D&R Canal Towpath



East Coast Greenway Alliance: [www.greenway.org](http://www.greenway.org)

NJ Committee for the East Coast Greenway: [www.greenwaynj.org](http://www.greenwaynj.org)

Steve Spindler  
December 2, 2004





The study consists of a route location analysis for a shared use path and trail, and proposes a 64-mile route through five counties and 22 municipalities, connecting the Delaware and Raritan (D&R) Canal Towpath in South Bound Brook to the Hudson River Walkway and Liberty State Park, with access to New York's section of the ECG via ferry. The recommended route identified through this project includes supporting documentation to assist the New Jersey Committee in securing official designation by the ECGA.

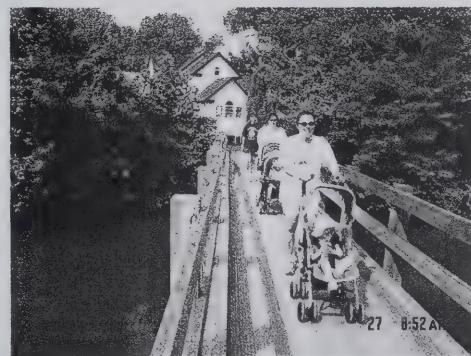
## Benefits to New Jersey

The East Coast Greenway will provide many benefits to New Jersey. By definition, greenways are linear corridors of protected open space managed for conservation, recreation and transportation purposes. Besides providing opportunities to support New Jersey's conservation, recreation and transportation objectives, the ECG also has the potential to increase tourism, bringing associated economic benefits to trail communities as part of a nationally-significant long-distance trail.

Greenways often follow natural land or water features and link nature preserves, parks, cultural features, historic sites and visitor attractions with each other and with populated areas. The ECG route through New Jersey follows natural river corridors, such as the Raritan and Rahway Rivers, passes through many parks and outdoor recreational attractions, such as the D&R Canal State Park and Weequahic Park, and historic and cultural destinations, such as the Statue of Liberty and the Liberty Hall Museum. The route also passes by or near some of New Jersey's major visitor attractions, such as the NJ Performing Arts Center and the Newark Riverfront Stadium, providing a non-motorized travel option for visitors from within and without New Jersey.



Besides connecting these diverse landscapes and visitor attractions, the ECG has the potential to become a major outdoor recreation and tourism attraction in itself, bringing economic benefits to communities along the route when trail users spend money on accommodations, food, services and other goods.



Although the ECG's potential to benefit New Jersey communities through tourism is an exciting concept, the benefits to New Jersey residents are the most compelling, significant, and immediate. The ECG will connect residential areas with schools, parks, businesses, downtowns, public attractions and transit stations, offering local residents more opportunities for non-motorized local travel. Because the trail provides walkers, cyclists, skaters and others with an alternative to traveling on roadways, the trail has the potential for reducing roadway congestion and crashes.



The ECG is also an easily accessed facility for exercise, supporting healthier lifestyles and benefiting public health. According to the Center for Disease Control, obesity is the second leading cause of preventable death behind tobacco in the United States. A change in behavior to increase exercise and develop better eating habits is a necessity for the nation to reverse the current trend. Providing daily opportunities to combine outdoor recreation with routine activities, such as walking and biking as people go to work or shop, and providing close-to-home facilities for walking and biking as leisure time activities, is a prerequisite for change. The study's proposed ECG route is positioned to provide convenient access to residents of 22 municipalities.

The over-riding goal of the ECG is to connect existing and planned trails that are locally owned and managed to form a continuous, safe, green route. Part of the scope of this study included a review of currently proposed greenway and trail projects, along with many of New Jersey's local and county trail and bicycle facility networks, to identify potential connections between facilities. Connecting facilities strengthens existing efforts to protect open space and to build trail and "on-road" bicycle and pedestrian facilities. Overall, the ECG supports and enhances local, regional and statewide watershed management plans, outdoor recreation plans, and non-motorized transportation plans.

## The Study

The study was conducted in two phases that are documented in this report. Phase 1 identified several alternative routes for a northern New Jersey "spine" of the East Coast Greenway that would extend from the D&R Canal Towpath in South Bound Brook, Somerset County, through Middlesex, Union, Essex, and Hudson Counties, and include the City of Newark and Jersey City. Potential destination "gateways" in New Jersey, from which the East Coast Greenway can access New York, were also identified (see Figure 1-1). A preliminary environmental and cultural screening within the study area was conducted as part of the initial route evaluations, with emphasis on proposed alternative corridors that had been identified during Phase 1. The Preliminary Environmental Screening report is a separate document prepared as part of Phase 1 of the study.

Phase 2 of the study identified a recommended primary route through northern New Jersey based on the evaluation of the alignments that had been identified in Phase 1. Upon the selection of the primary route, a proposed implementation phasing plan was proposed, based on the status of the recommended route (existing, under development, or proposed for future development). Short, medium and long-term timelines for implementing the recommended ECG route were developed, along with typical costs to establish a framework for funding needs.

A third phase of this project, not included as part of this study, was subsequently initiated to propose an interim short-term ECG alternative that can serve as a continuous route for immediate use.


**Figure 1-1**





Screening potential routes to determine consistency with planning and design criteria established by the ECGA was central to the route analysis and selection process. Proposed alignments were evaluated based on their potential to achieve the following key objectives of the ECGA:

- The Greenway will be off-road as much as possible (ideally more than 80%), with on-road connections appropriate for all skill levels of bicyclists and walkers.
- The Greenway will “piggyback” along existing and proposed trails.
- The Greenway will provide access to the centers of cities and will link with key transportation nodes.
- The Greenway will provide a varied experience of New Jersey’s landscapes, with the potential for connections to area attractions.

Although field investigations, review of currently proposed trail projects, and mapping analysis contributed towards the selection of a primary route, interviews and meetings with state, county, municipal and non-profit stakeholders were the most influential components in gaining the local knowledge necessary to define a realistic alignment and build consensus for the ECG.

Another important study component was the involvement and participation of a Study Advisory Committee. The Advisory Committee included representatives from Hudson, Essex, Union, and Middlesex Counties, the NJ Committee for the ECG, key governmental agencies, and several targeted non-profit organizations that have an interest in the project. The Advisory Committee and, especially, the county representatives assisted in coordinating and supporting outreach meetings with additional governmental and non-profit stakeholders to further refine the route location as well as to discuss project needs.

Through representation on the Study Advisory Committee, the NJ Committee for the ECG was kept informed of and contributed to the progress of the study. In addition, the project team met with the NJ Committee in combined Advisory Committee/NJ ECG meetings at key junctures of the planning process to provide insight and to vote on route recommendations.

Targeted outreach to municipalities and additional stakeholders included two meetings to review the northern and southern segments of the proposed route respectively, which were held in Jersey City and in Edison. The purpose of the meetings was to solicit input on the study recommendations, particularly from the representatives of the municipalities along the proposed route. The meetings were advertised in the five counties with special outreach from NJDOT to the 22 municipalities along the route. Stakeholder interviews were conducted with a range of municipal and county representatives from stakeholder agencies throughout the study area to complete background research, stimulate interest in and reach consensus for the project. In all, over 100 people were contacted to gain insight on where the ECG should be routed through New Jersey.

Chapters one through four describe the study’s purpose and goals, provide an overview of the proposed route by corridor, and summarize the study methodology and corridor selection process. Chapters five and six provide an overview of the major issues, opportunities and constraints that would need to be addressed during future implementation phases. The current status and jurisdiction of the proposed route is presented by municipality and county, a



phasing plan recommends segments for short-, mid- and long-term development, and typical facility development costs are presented. These are intended as a general guide for the many partners who would be responsible for implementing segments of the route, thereby creating a continuous East Coast Greenway through northern New Jersey.



## **Chapter 2: The Proposed Route**

### **A Geographic Overview**

The objective of this study is to define routing for the East Coast Greenway (ECG), between the end of the current ECG designation on the D&R Canal Tow Path (South Bound Brook, Somerset County) and the designated ECG route around Manhattan Island in New York City. A primary requirement for the proposed route is that the alignment must pass through the City of Newark, New Jersey's most populous city. The study resulted in the selection of a 64-mile proposed route through five counties and 22 municipalities that accomplishes these general goals, and meets objectives for the 2,600 miles ECG that are outlined by the East Coast Greenway Alliance (ECGA).

The proposed route through the study area is described in five discrete corridor segments with names that reference a defining characteristic of their location. The topographic map shows the general location of the route that is entirely within lowlands south and east of the Watchung Range. For example, two of the corridors



are named for the rivers they predominantly follow, the Raritan and Rahway Rivers. The Historic Rail/Jersey City Corridor is named for the historic railroad structures and former rail lines that provide a conduit through much of Hudson County.

These five corridors

presented below are illustrated on the proposed Route Location Overview Maps that follow.

Although the exact route alignment through these corridors may be adjusted in the future to accommodate local needs and opportunities, the corridors provide a framework for the ECG path through northern New Jersey. Beginning with the southwestern terminus of the study limits, the D&R Canal Towpath in South Bound Brook, Somerset County, the following narrative provides an overview of the proposed route through northern New Jersey by corridor.

**"Raritan River" Corridor to the Middlesex Greenway:** The corridor alignment follows the D&R Canal Towpath from South Bound Brook to New Brunswick, crosses the Raritan River at Landing Lane and follows the River south and east through Piscataway and Highland Park, passing through Johnson and Donaldson Parks. In Edison, the alignment turns northward through Raritan Center, and follows the Middlesex Greenway.

**Somerset County**  
1. South Bound Brook  
2. Franklin

**Middlesex County**  
3. Highland Park  
4. New Brunswick  
5. Piscataway  
6. Edison  
7. Woodbridge

**Union County**  
8. Rahway  
9. Clark  
10. Winfield  
11. Cranford  
12. Springfield  
13. Union  
14. Kenilworth  
15. Elizabeth  
16. Hillside

**Essex County**  
17. Newark

**Hudson County**  
18. Harrison  
19. E. Newark  
20. Kearny  
21. Secaucus  
22. Jersey City



**"Rahway River" Corridor to Lenape Park, Cranford:** The corridor alignment from the Middlesex Greenway follows the proposed Route One Utility Trail and passes through Roosevelt Park to the Rahway River Corridor. Following the Rahway River Corridor through Woodbridge and into Union County, the alignment passes by the Metropark Rail Station and threads together a series of parks and public institutions, including the Veterans Home, Merrill Park, and the Rahway River Parkway.

**"Galloping Hill" Corridor to Weequahic Park, Newark:** This corridor follows a series of Union County parks along the Elizabeth River and a short on-road section in Hillside, connecting to Weequahic Park in Newark.

**"Newark Greenway" Corridor to Passaic River Crossing:** The alignment of the Newark Greenway is currently under investigation, but will likely become an ideal choice for the ECG. The ECG will cross the Passaic River via the Jackson Street Bridge crossing which leads to the "Historic Rail/Jersey City" route. This section will also link to Newark's Pennsylvania Station, a major regional transit hub, including connection to Newark's Liberty International Airport.

**"Historic Rail/Jersey City" Corridor to the Hudson River Ferry Crossing:** This segment follows a former Conrail line that passes through the natural areas of the Meadowlands and crosses the Hackensack River by a new bridge or ferry to industrial landscapes of Jersey City. Crossing active rail corridors, the ECG could then directly access the Bergen Arches and continue along the Bergen Arches corridor across Jersey City. From the eastern end of the Bergen Arches, the alignment extends to the elevated Pennsylvania Railroad Harsimus Stem Embankment (bridges required) along 6<sup>th</sup> Street and then accesses the Hudson River Waterfront Walkway to reach Liberty State Park or other ferry stations with service to New York City.

There is a proposed alternative for crossing the Hackensack River using the existing, and soon to be reconstructed, Wittpenn Bridge along NJ Route 7, then continuing along the Bergen Arches corridor. *This Wittpenn Bridge option is available for use today, whereas the Historic Rail crossing will require significant development.* Route 7 west of the bridge however, has extremely poor pedestrian or bicycle access due to a high conflict interchange, and would need new facilities to accommodate the ECG.

An alternate routing across Jersey City has also been identified that parallels the Bergen Arches alignment. This would travel south along the bank of the Hackensack River to Lincoln Park, then use a series of on-road segments to access either the 6<sup>th</sup> Street Harsimus Embankment, or travel directly along Communipaw Avenue. This alignment could extend from either the Historic Rail or Wittpenn Bridge crossing of the Hackensack River.

**Liberty Park Ferry to Battery Park, New York City:** Although there are multiple options for gateways between New Jersey and New York, the Liberty Landing Marina in Liberty Park, a nationally significant visitor destination, is the recommended location, offering ferry service to Ellis and Liberty Islands and an outstanding gateway between New Jersey and New York.

# East Coast Greenway, Northern NJ Route Location Study

## Recommended Route Overview Map

### Regional Overview

Map Developed By:  
**The RBA Group, Inc.**



April, 2004



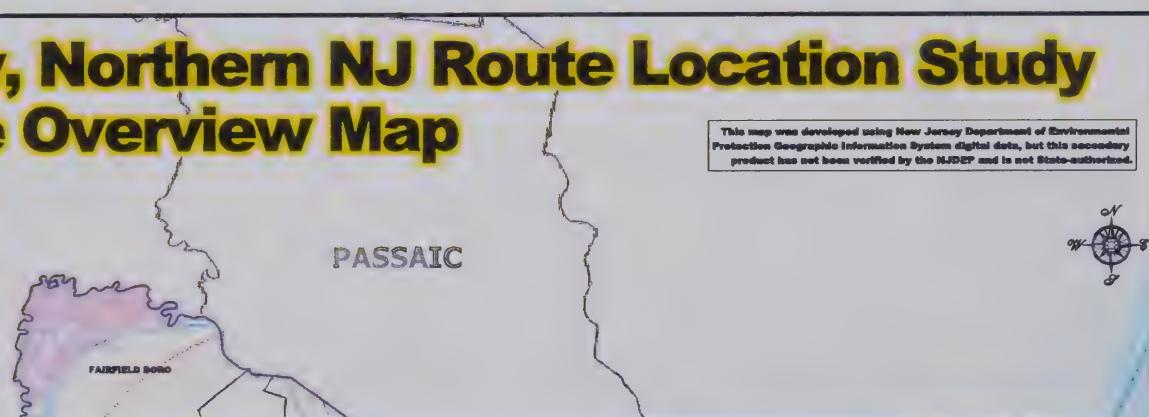
**NJDEP Natural Heritage Priority Sites** are mapped as a good representative population of State or Federal priority sites or candidates for them. This data is intended to identify and highlight areas of ecological significance and potential environmental issues. While this is a general source of the best and most detailed information of categorized and threatened species and natural communities, they do not cover all known habitat for endangered and threatened species in New Jersey.

**NJDEP Mapped Wetlands** are a graphical representation of wetland data and it consists of the total and mapped wetlands as of 1988. This data is intended to serve as a resource for management rather than regulatory determinations. The NJDEP does not have the resources or time to do depth analysis and field inspections for regulation.

**NJDEP Identified Golf Courses** represents the legacy, current and few areas of used of the golf courses in New Jersey. There are 180 courses identified and 602 plots. Many courses show up as disconnected polygons because they are individual plots owned by one entity, business, or other organization. Some courses, 11 more or nearly 6% of total wetlands, are included in a larger polygon, although these areas may be owned by the golf course.

**Parks, Recreation and Other Open Spaces** data were taken from a variety of sources including the Land and Water Conservation Fund, State Park System, National Park Service, US Fish and Wildlife Service, US Forest Service, and various state and local agencies. These data include parks, recreation areas, and open spaces (1880, 188467 acreages) for Rutgers, New Jersey, Mathematics and Science Center (NJRSSC) identified priority and Environmental Research System Institute (ERSI) provided data for New York and New Jersey.

**NJDEP Mapped Open Space** data represent both state owned, purchased open space and privately owned land. These data include parks, recreation and reservation areas and military parcels containing large tracts of undeveloped land, such as supply concentrations areas (warehouses, reservoirs and utility concentrations) and the like. These data are also included in the Parks, Recreation and Other Open Spaces data. These data are from the NJDEP Land Use and Land Cover data which has identified much a variety of representative facilities that may or may not be part of established parks (such as historical buildings, landmarks, etc.). These areas may be used for residential, industrial, commercial, or a community based development.



This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by the NJDEP and is not State-authorized.





**"Rahway River" Corridor to Lenape Park, Cranford:** The corridor alignment from the Middlesex Greenway follows the proposed Route One Utility Trail and passes through Roosevelt Park to the Rahway River Corridor. Following the Rahway River Corridor through Woodbridge and into Union County, the alignment passes by the Metropark Rail Station and threads together a series of parks and public institutions, including the Veterans Home, Merrill Park, and the Rahway River Parkway.

**"Galloping Hill" Corridor to Weequahic Park, Newark:** This corridor follows a series of Union County parks along the Elizabeth River and a short on-road section in Hillside, connecting to Weequahic Park in Newark.

**"Newark Greenway" Corridor to Passaic River Crossing:** The alignment of the Newark Greenway is currently under investigation, but will likely become an ideal choice for the ECG. The ECG will cross the Passaic River via the Jackson Street Bridge crossing which leads to the "Historic Rail/Jersey City" route. This section will also link to Newark's Pennsylvania Station, a major regional transit hub, including connection to Newark's Liberty International Airport.

**"Historic Rail/Jersey City" Corridor to the Hudson River Ferry Crossing:** This segment follows a former Conrail line that passes through the natural areas of the Meadowlands and crosses the Hackensack River by a new bridge or ferry to industrial landscapes of Jersey City. Crossing active rail corridors, the ECG could then directly access the Bergen Arches and continue along the Bergen Arches corridor across Jersey City. From the eastern end of the Bergen Arches, the alignment extends to the elevated Pennsylvania Railroad Harsimus Stem Embankment (bridges required) along 6<sup>th</sup> Street and then accesses the Hudson River Waterfront Walkway to reach Liberty State Park or other ferry stations with service to New York City.

There is a proposed alternative for crossing the Hackensack River using the existing, and soon to be reconstructed, Wittpenn Bridge along NJ Route 7, then continuing along the Bergen Arches corridor. *This Wittpenn Bridge option is available for use today, whereas the Historic Rail crossing will require significant development.* Route 7 west of the bridge however, has extremely poor pedestrian or bicycle access due to a high conflict interchange, and would need new facilities to accommodate the ECG.

An alternate routing across Jersey City has also been identified that parallels the Bergen Arches alignment. This would travel south along the bank of the Hackensack River to Lincoln Park, then use a series of on-road segments to access either the 6<sup>th</sup> Street Harsimus Embankment, or travel directly along Communipaw Avenue. This alignment could extend from either the Historic Rail or Wittpenn Bridge crossing of the Hackensack River.

**Liberty Park Ferry to Battery Park, New York City:** Although there are multiple options for gateways between New Jersey and New York, the Liberty Landing Marina in Liberty Park, a nationally significant visitor destination, is the recommended location, offering ferry service to Ellis and Liberty Islands and an outstanding gateway between New Jersey and New York.

# East Coast Greenway, Northern NJ Route Location Study Recommended Route Overview Map Regional Overview



This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by the NJDEP and is not State-authored.

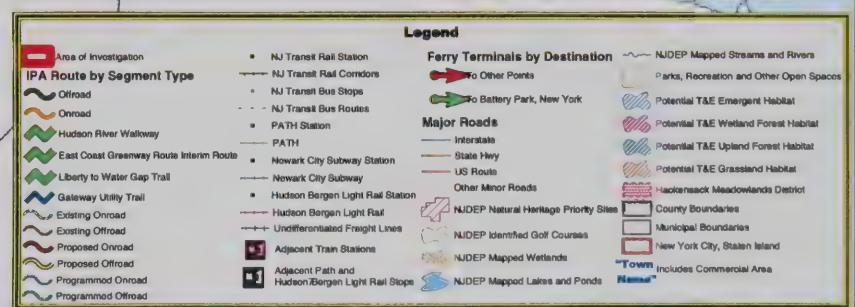


**The Proposed Route is Divided into Five Corridor Segments:**

- HISTORIC RAIL/JERSEY CITY
- NEWARK GREENWAY
- GALLOPING HILL
- RAHWAY
- RARITAN



**Area of Interest**  
The Area of Interest is a geographic representation of available data and resources of the land and natural resources in New Jersey. This map is intended to provide a general overview of the area and its resources. It is not intended to be a detailed map of the area or to show all the details of the area. The map is intended to be used as a reference tool to help identify areas of interest and potential opportunities for development.





# East Coast Greenway, Northern NJ Route Location Study

## Recommended Route Overview Map

### Hudson and Bergen Counties

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**NJDEP Natural Heritage Priority Sites** are recognized as good representatives of State or Federal priorities for endearing species or areas. This data set creates a network of habitat areas that are important to rare plants and natural communities. NHP sites contain some of the best and most viable ecosystems remaining in the state. They are considered to be significant because they do not occur at levels needed for long-term and threatened species in New Jersey.

NJDEP Mapped Regions are a graphical representation of wetlands data and it contains all the total and non-tidal wetlands as of 1988. The data is intended to serve as a resource for analysis rather than regulatory determinations. The NJDEP may change the framework based on more in-depth analysis and field mapping for regulatory purposes.

NJDEP Identified Golf Courses represent the fairway, green and tee areas of most of the golf courses in New Jersey. There are 295 courses identified and 533 parcels of land associated with them. The courses are separated from each other by parcels are separated by tracts of wetland, forest or other land covers. Substrates (topsoil) and water tables (water table) are also mapped to indicate potential pathways through these areas may be served by the golf course.

Parks, Recreation and Other Open Spaces data were taken from a variety of sources including, but not limited to, Planning Areas of the Draft Final State Development and Resource Plan (SDRP) (1990), Land Use and Resource GIS coverage (1988, 1988/97 datasets) for Bergen, Essex, Hudson, Middlesex and Union counties; and the New Jersey Statewide Open Space System (SOS) provided data for New York and New Jersey.

NJDEP Identified open space data represents both state owned, protected open spaces and recreation areas as well as federally owned and protected open space and recreation areas. These areas include wetlands, undeveloped land, water supply management areas (wells), reservoirs and utility conservation easements. The data is derived from the SDRP and the NJDEP's Land Use/Resource GIS coverage. NJDEP Land Use/Land Cover data includes both identified parts a variety of resources and areas that may or may not be part of the park system. These include state, terms county, local and county. These may be associated with schools, industrial and commercial areas, or a community housing development.





# East Coast Greenway, Northern NJ Route Location Study Recommended Route Overview Map Hudson and Bergen Counties

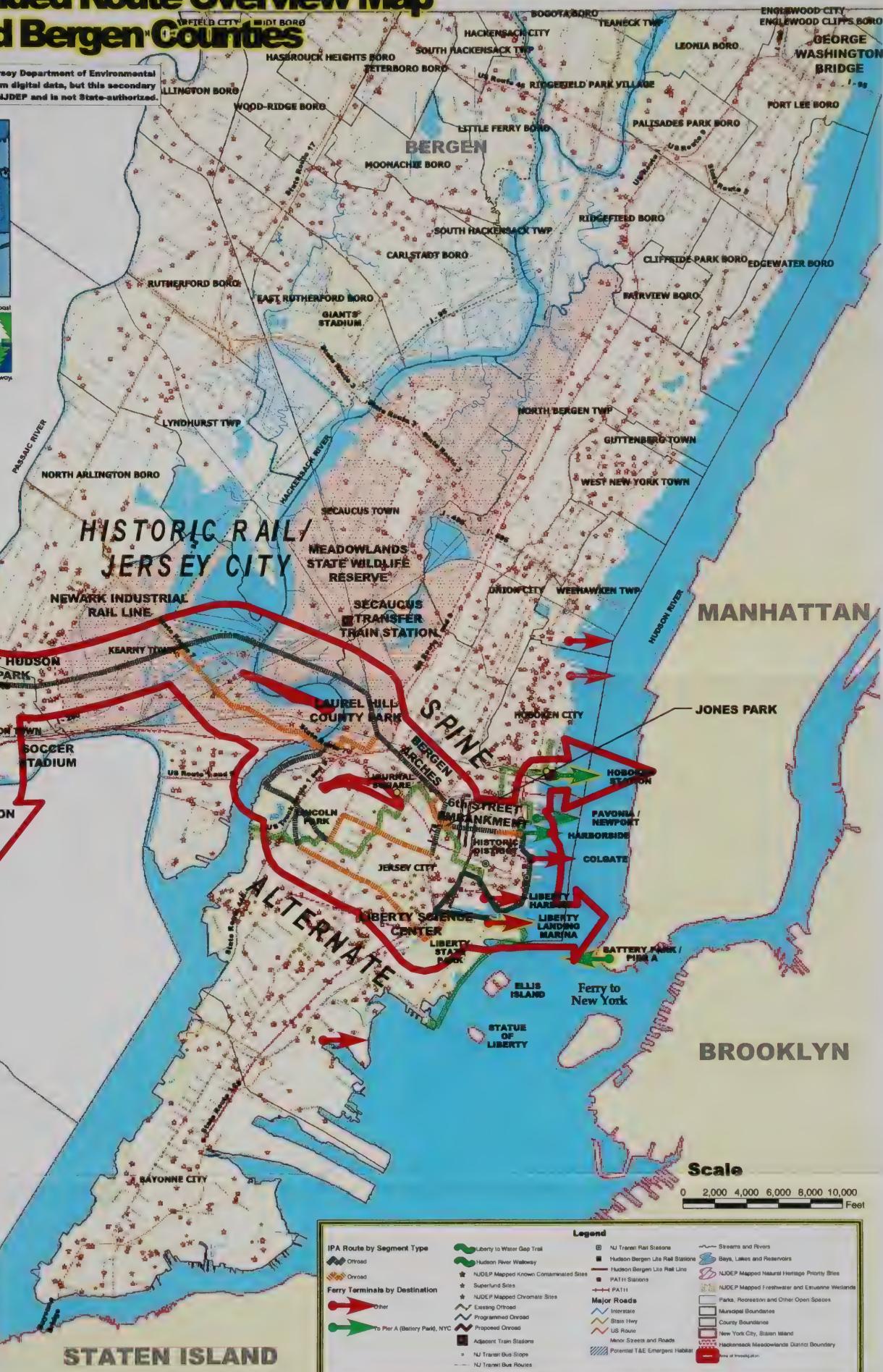
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Map Developed By:  
**The RBA Group, Inc.**

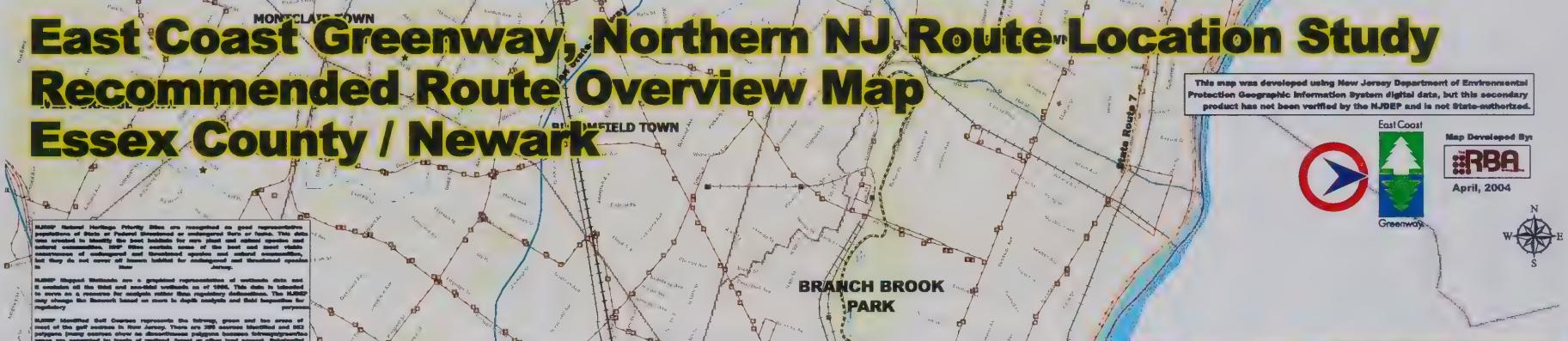


April, 2004

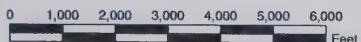




# East Coast Greenway, Northern NJ Route Location Study Recommended Route Overview Map Essex County / Newark



Scale



THROUGH NEWARK WILL BE BASED  
ON NEWARK GREENWAY STUDY  
CURRENTLY IN PROGRESS.









# East Coast Greenway Recommendations Union County

This map was developed using New Jersey Department of Environmental  
Geographic Information System digital data, but this secondary  
map has not been verified by the NJDEP and is not State-authorized.

Map Developed By:



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April, 2004



**NJDEP Natural Heritage Priority Areas** are recognized as great representative populations of State or Federal threatened or endangered flora or fauna. This data was created to identify the best habitats for rare plants and animals species and further assist in identifying NJDEP priority areas for protection and viable conservations of endemic and threatened species and natural communities, but they do not cover all known habitats for endangered and threatened species in New Jersey.

**NJDEP Mapped Wetlands** are a graphical representation of wetlands data and it contains all the tidal and non-tidal wetlands of 1984. This data is intended to be used as a reference for planning and resource management decisions. The RBA Group Inc. is not responsible for any changes that may occur in the data. The RBA Group Inc. may change the data based on more in-depth analysis and field inspection for regulatory purposes.

**NJDEP Identified golf Courses** represent the attorney, gross and less areas of most of the golf courses in New Jersey. There are 381 courses identified and 212 polygons. Many courses share an association, for example, one course may have more than one polygon (e.g., one polygon for forest or other land covers). Individual courses may be associated by more than one polygon. Individual courses (1 acre or more) tracks of forest or wetlands are not included in a course's polygon, although those areas may be owned by the same owner.

**Parks, Recreation and Other Open Spaces** data were taken from a variety of sources, including, but not limited to Planning Areas of the Great Plan, State Development and Resource Plan, New Jersey Statewide Parks and Recreation System (1986), Automap for Bergen, Essex, Hudson, Middlesex and Union Counties (all resources identified previously) and Environmental Research Systems Institute (ERSI) provided data for New York and New Jersey.

**NJDEP Identified open space data** represents both state-owned, protected open spaces and recreation areas as well as federally-owned and protected open spaces and recreation areas (and certain parks, preserves, and other lands). These areas are not necessarily owned or controlled by the NJDEP, but are used for water supply management areas (wells), reservoirs and utility conservation easements in New Jersey. These areas, though providing statewide data, are incomplete. NJDEP **Urban Cover** data is derived from the National Land Cover Data (NLCD) of 1992. This data includes urban areas that may or may not be part of established parks (such as botanical sites, state parks, historical areas), those associated with schools, industrial and commercial firms, or a community housing development.



- Area of Investigation
- IPA Route Alignment
- Offroad
- Onroad
- ★ NJDEP Mapped Known Contaminated Sites (2001)
- ★ EPA Superfund Sites
- Proposed Onroad
- Existing Offroad
- Existing Onroad





# East Coast Greenway, Northern NJ Route Location Study

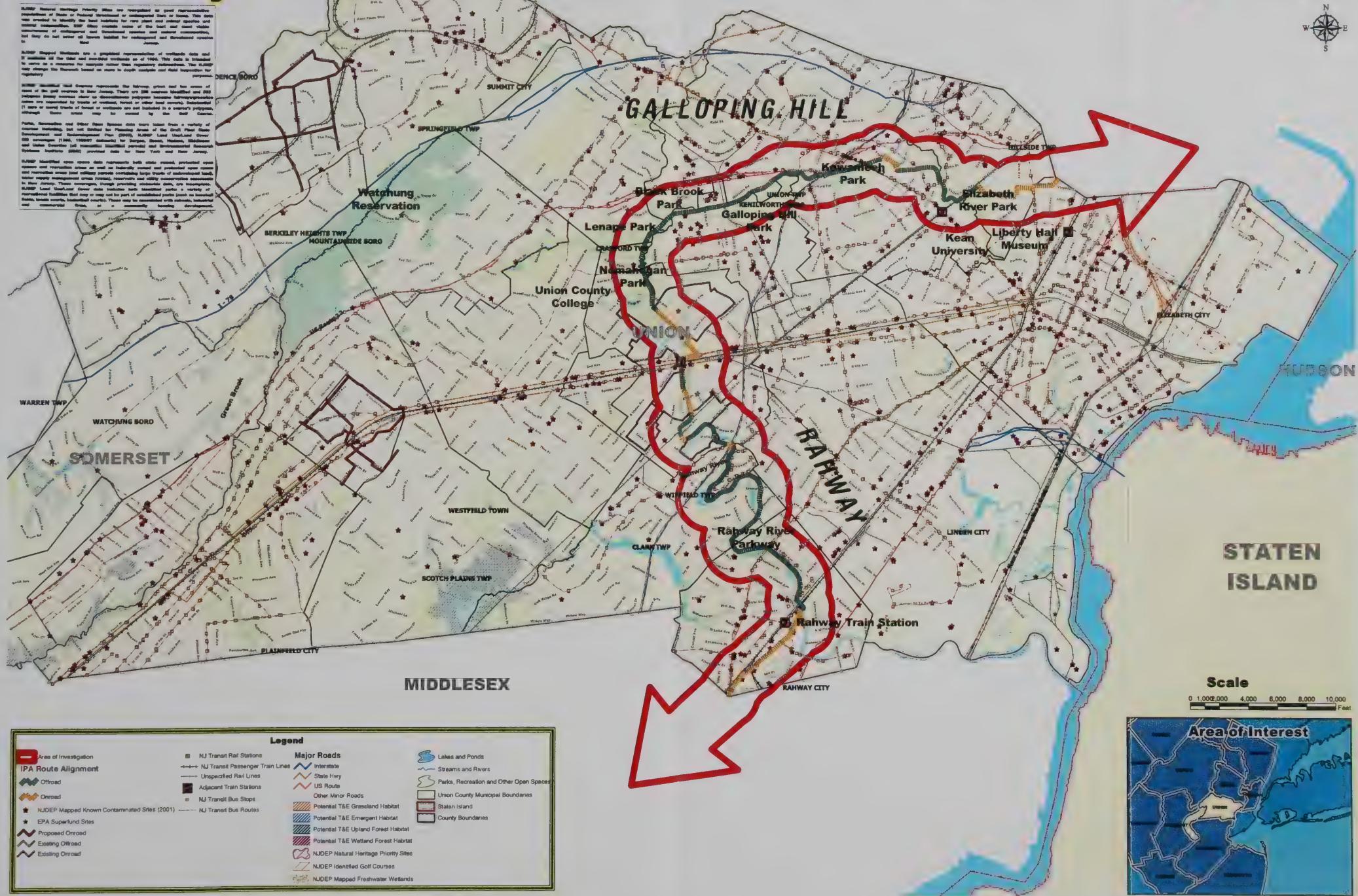
## Recommended Route Overview Map

### Union County

This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by the NJDEP and is not State-authorized.



Map Developed By:  
**RBA**  
RECREATION AREA BOARD OF NEW JERSEY  
April, 2004





# East Coast Greenway Recommended Middlesex County

Developed using New Jersey Department of Environmental Graphic Information System digital data, but this secondary has not been verified by the NJDEP and is not State-authorized.



Map Developed By:



April 2004

East Coast



Greenway



## Scale

0 2,000 4,000 6,000 8,000  
Feet

## IPA Route Alignment by Segment Type

- Offroad
- Onroad
- Area of Investigation
- Existing On Road
- Existing Off Road
- Proposed On Road
- Proposed Off Road
- Programmed On Road
- Programmed Off Road
- NJDEP Mapped Known Contaminated Sites (2001)

NJDEP Historic Landmarks/Polygons are recognized as good representations of State or Federal Designated or designated areas of interest. This data was used to identify the best locations for route alignment and corridor placement. These areas are not necessarily the exact boundaries of the land and water areas, but are the areas where the boundaries for individual and historical properties fall.

NJDEP Designated Wetlands are a geophysical representation of wetlands data and a section of the total land and water wetlands as of 1990. This data is intended to serve as a resource for analysis rather than regulatory delineation. The NJDEP does not have the authority to regulate wetlands for environmental purposes.

NJDEP Monitored and Unassessed represents the known, prior and the area of most of the land resources in New Jersey. There are 200 sources identified and 1000 sites monitored. These areas are not necessarily the exact boundaries of the property as represented by tracks of wetland, forest or other land surface. Individual plots are represented by tracks of wetland, forest or other land surface. Individual plots are not included in a property's polygons, although some areas may be included in the property's polygons.

Port Authority Other Open Space Data were taken from a variety of sources including, but not limited to Planning Areas of the Port Plan Area Development and Rehabilitation Plan (2000), NJMAP Land Use/Land Cover (1990), 1990/1997 Assessment for Rutgers University, New Jersey, and the National Oceanic and Atmospheric Administration's National Coastal Digital Database (2002) provided data for New York and New Jersey.

NJDEP Open Space Data represents both state owned, privately owned, privately owned and reserved areas as well as federally owned and privately owned open space areas. These areas include areas for recreation, conservation, and supply management areas (forests, meadows, and utility conservation easements). These areas, through providing alternative sites, are important to the preservation of the environment. These areas are not necessarily areas of environmental facilities that may or may not be part of established parks such as boardwalks, beach areas, historical areas, etc. There may be areas with federal and state ownership, private ownership, or privately held land.

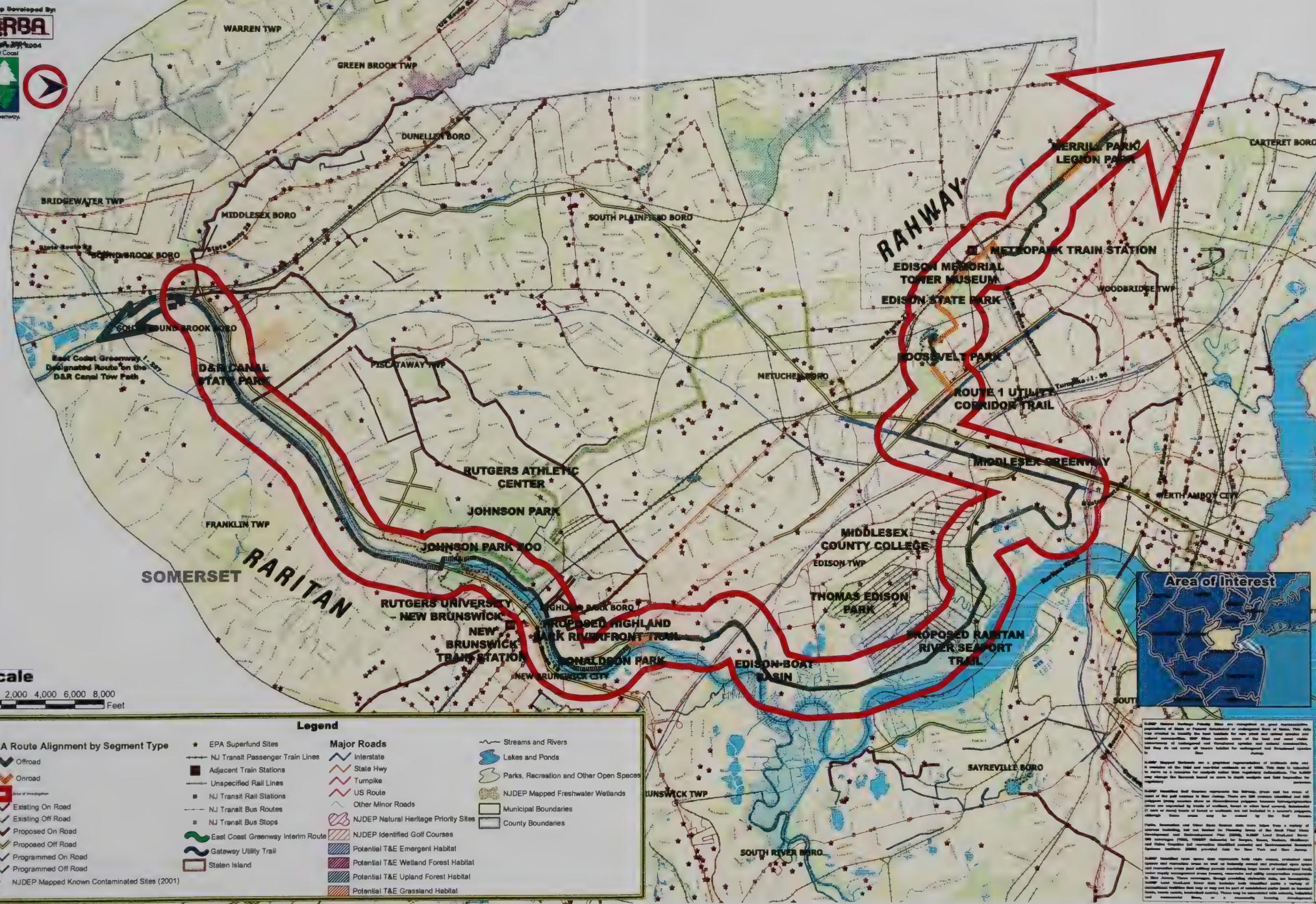


# East Coast Greenway, Northern NJ Route Location Study

## Recommended Route Overview Map

### Middlesex County

This map was developed using New Jersey Department of Environmental Protection Geographic Information Systems digital data, but this secondary product has not been verified by the NJDEP and is not State-authorized.







## East Coast Greenway National Designation

The goal of the New Jersey Committee for the East Coast Greenway is to establish a route through New Jersey that will ultimately be officially designated by the national East Coast Greenway Alliance (ECGA). A route is officially designated as part of the ECG when it is open to the public and meets standards as defined by the ECGA. The formal process begins with the nomination of a trail segment by the State Committee with the consent and approval of the trail's managing organization. The ECGA then reviews the nomination and performs an inspection before the trail is officially recognized as a designated ECG route.

The ECGA also recognizes routes that are either under development or proposed as interim routes through the classification system outlined below. Although these classes of designation are under review and refinement by the ECGA, the characteristics associated with formal designation establish the parameters for route selection.

### 1. Class A: Designated Route

- Off road, completed and in use
- Meets minimum design and management criteria
- Fully accessible by walkers and touring bicycles (firm and relatively smooth surface)
- Publicly accessible year round for multi-modal non-motorized travel

### 2. Class B: Provisional Routes

- Can achieve minimum criteria for Class A within five years.
- Publicly accessible to walkers, but requires development to accommodate bicyclists.

### 3. Class C: Interim Connecting Routes

- On road or below standard routes that connect Class A and B segments.
- Interim routes until off-road alternative is found.
- A road with a bike lane or shoulder and a parallel walking facility, suitable for ECG intended audience

### 4. Class D: Temporary Connecting Routes

- On road as Class C, but without pedestrian facilities
- Useable only by skilled on-road cyclists

There is also a Planning Category: Potential Corridor and Potential Trail, which is a broad corridor connecting two urban centers within which a route may be eventually located.

## Goals and Evaluation Criteria

The goal for the ECG is to achieve a relatively direct connection between 24 cities identified by the ECGA as key nodes along the route. The northern NJ section should connect the ECG-designated D&R Canal at Sound Bound Brook and New York City as directly as possible, via the City of Newark, which has recently been approved (November 2003) as the 24th major city to be included along the defining line of the East Coast Greenway; Jersey City was also added



as the 25<sup>th</sup> major City. Ideally, the East Coast Greenway should be located within 20 miles of a direct line drawn between these destinations.

In addition to connecting the centers of the identified cities, the route should also connect to key transportation nodes, such as bus and train stations.

The ECG is intended to be primarily an off-road trail facility. Recognizing the difficulty of achieving this goal through intensely developed urban centers, the ECGA has identified a national target of an 80% off-road trail. Two key strategies to achieve this target within the highly developed study area were to define an alignment through existing parks and open space, and to "piggy-back" on existing and proposed local and regional trails.

These strategies offer additional advantages for the region and for the proposed alignment. By connecting individual parks and open space, the ECG increases access to established recreational areas. By "piggy-backing" on local and regional projects, the ECG reinforces the efforts of local and regional project sponsors and reduces the time frame and level of effort required to complete the route.

Based on a review of the ECGA documentation of the designation process and criteria, the following criteria were used to guide route selection for this study.

#### ***Off-Road Criteria***

The entire corridor should have the potential to be off-road (traffic-free) for at least 80% of the alignment. The composition of the off-road portions may be:

- Existing Trail (Potential Class A) that does not permit motorized use,
- Proposed Trail (Potential Class B: Provisional Routes pending completion in 5 years),
- Linear corridors, such as river corridors, utility corridors and rail lines (preferably inactive),
- Publicly owned parks and open space,
- Privately owned property in the public domain by agreement with owner.

*Engineering Standards:* Adequate operating space for a bicycle and pedestrian trail that meets accepted design standards; has firm and relatively smooth surface.

*Directness:* Provides the most direct route through the heart (downtown) of the major cities identified by the ECGA.

*Aesthetics:* Pleasing in location and design.

*Variety of Experience:* Different landscapes, variety in natural settings, different land uses, different socio-economic and ethnic areas.

*Maximizes Access to Multiple Destinations:* Connects people to work, school, shopping, cultural and recreation sites; accesses important regional or national sites or destinations.



*Provision of Amenities:* Drinking water, public rest rooms, telephones, food and convenience stores, restaurants, overnight accommodations (hostels, camping, B&B), emergency assistance, bicycle and repair shops, etc.

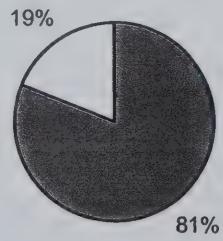
#### On-Road Criteria

Where off-road routing appears unavailable, connecting routes may be on-road (Potential Class C: Interim Connecting Routes pending identification of off-road opportunities). On-road segments should meet the following criteria:

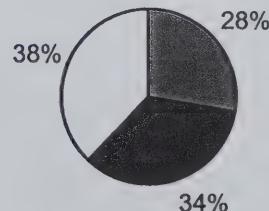
- Low traffic,
- Direct connection,
- Good physical condition,
- No major user constraints: steep grades, difficult intersections and other hazards or problem spots,
- Reasonably safe for bicyclists with average skill level,
- Alternate walking route available, such as sidewalks or footpaths.

As the study progressed, these criteria were applied to evaluate and compare alternative corridors. The recommended proposed route has the potential to meet the goals and criteria established by the ECGA.

The proposed 64-mile route achieves the potential for an 81% off-road facility, with an estimated 60 miles that are either on existing or proposed trails, or that have the physical space required to accommodate the development of an off-road facility. In addition, of the 64 miles, nearly a third of the alignment is located on existing facilities (28%) and a third of the route is along facilities that have been proposed by local or regional sponsors (34%). Only 24 miles of the route, or 38% are newly proposed and will require adoption by local, regional, and state sponsors.



Off Road -vs- On Road Alignment



Development Status









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### **Chapter 3: Corridor Assessment**

#### **How the Route Meets Selection Criteria**

The following corridor summaries outline the off-road potential as well as the transit and central business connections and the major attractions along or near each segment. This summary also identifies the existing local and regional projects that can become part of the ECG alignment to minimize the amount of new construction required to complete the greenway.

Also included are photo logs for each corridor from field investigations that were conducted during the alignment evaluation and selection process.





## Raritan River Corridor

The Raritan River Corridor is approximately fifteen miles long, twelve miles of which (80%) are identified as having off-road potential. The limits of this corridor segment are the designated portion of the East Coast Greenway along the Delaware and Raritan Canal Towpath at Main Street in South Bound Brook, and the southwestern limit of the Rahway River Segment at the Middlesex Greenway by the Raritan Center in Edison.

### Land Use

The land uses along the Raritan River Corridor vary greatly, ranging from parks and marinas to industrial and landfill areas. There are centralized business districts on each side of the river that the corridor would connect along its alignment. This segment would serve to connect many local and regional parks along the Raritan River watercourse.

### Opportunities

The Delaware and Raritan Canal Towpath currently terminates to the east just short of the Route 18 crossing in New Brunswick. Routing the ECG along this corridor will allow travelers who prefer off-road corridors to continue from Trenton across the middle of New Jersey along mostly off-road corridors to within three miles of Staten Island, New York. The local transportation network will also be enhanced around the Rutgers University campus, complimenting the recently planned bikeway improvements along the Route 18 corridor, and potentially encouraging more bicycle and pedestrian trips.

### Conclusions

The Raritan River Corridor provides a scenic riverfront linkage for the ECG through central Middlesex County with connections to major destinations such as New Brunswick and Rutgers University and a large population in Edison. While there are constraints to the ECG's development, there are also significant off-road potential and excellent connections.



<i>Jurisdictions</i>	Somerset County Middlesex County
<i>Municipalities</i>	South Bound Brook Franklin Township Piscataway, New Brunswick, Highland Park, Edison, Woodbridge New Brunswick, Highland Park,
<i>Business Districts and Urban Centers</i>	Rutgers University, Rutgers Stadium, Johnson Park Zoo, Donaldson Park, Marinas, Thomas Edison County Park, East Jersey Olde Towne Village, Middlesex County College New Brunswick: NJ TRANSIT Northeast Corridor
<i>Attractions</i>	Line/AMTRAK Station D&R Canal Towpath, Rail Freight Line, Johnson Park Trail Highland Park Trail, Raritan River Seaport and Trail
<i>Train Stations</i>	I-287, Route 18, Route 1, NJ Turnpike, Route 440
<i>Existing Sections</i>	
<i>Proposed Facilities</i>	
<i>Rail and Highway Crossings</i>	



## Raritan River Corridor Photo Log



D&R Canal Tow Path



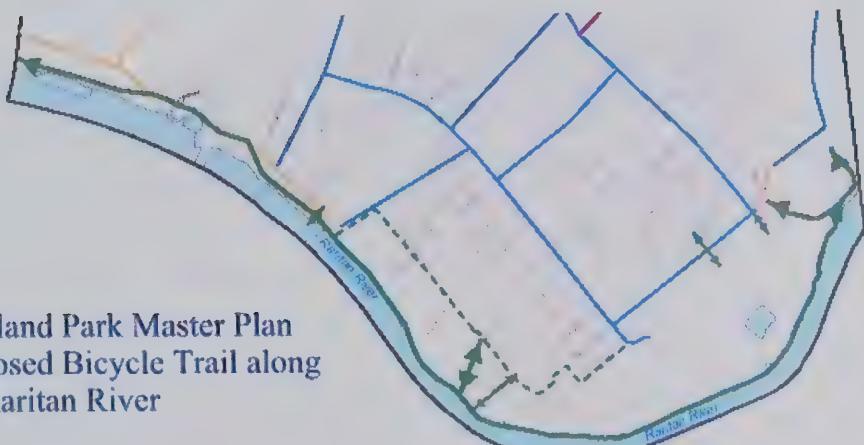
Landing Lane Bridge



Flooding in Johnson Park



Route 27 in Highland Park



**Highland Park Master Plan  
Proposed Bicycle Trail along  
the Raritan River**

0      0.25      0.5  
Miles



## Raritan River Corridor Photo Log



Valley Manor Apartments



Edison Under Rt. 1 Bridge



Raritan River Boat Club



Edison Boat Basin



Kin Buc Landfill



Abandoned RR, Meadow Rd



Abandoned RR off  
Executive Drive



Edison Park



Post Road Bridge





## Rahway River Corridor

The Rahway River Corridor is approximately seventeen miles long, fourteen miles of which (80%) are identified as having off-road potential. The limits of this corridor segment are the Middlesex Greenway by the Raritan Center in Edison and the southwestern limit of the Galloping Hill Segment at Lenape Park in Cranford.

### Land Use

The land use along the Rahway River Corridor varies mostly between parks and residential areas. This segment would serve to connect many local and regional parks along the Rahway River watercourse.

### Opportunities

Routing the ECG along the Rahway River Corridor will complement current planning efforts and create a comprehensive facility along the corridor. There are plans by Union County for greenway development along the Rahway River (original plans by Olmsted Brothers), and Middlesex County has proposed facilities along the Middlesex Greenway and Route 1. The ECG would provide the missing link between these facilities and link the local transportation networks and park systems in the area.

The Rahway River Corridor also provides excellent connections to rail transit. The Cranford and Metropark rail stations are directly along the route alignment. Routing the ECG past these stations will provide ECG patrons excellent options for regional travel, and provide the local community enhanced connections to their local rail stations.

### Conclusions

The Rahway River Corridor has significant potential for development as a link in the ECG. It provides excellent connections to a series of parks along the river's watercourse. It also ties together major transit facilities on two NJ Transit lines, and provides an AMTRAK service connection.



Jurisdictions	Middlesex County Union County
Municipalities	Edison, Woodbridge, Rahway, Clark, Winfield, Cranford Metuchen, Rahway City, Cranford
Business Districts and Urban Centers	Roosevelt County Park, Merrill Park, Edison Tower, The Menlo Park Museum, Rahway River Parkway, Woodbridge and Metropark Malls, Nomahegan Park, Union County College Metropark, NJ
Attractions	TRANSIT/AMTRAK; Rahway NJ TRANSIT Northeast Corridor and North Jersey Coast Lines; Cranford NJ TRANSIT Raritan Valley Line
Train Stations	Roosevelt County Park, Rahway River Parkway, Cranford Train Station, Army Corps Levee, Nomahegan Park
Existing Sections	Middlesex Greenway, Route 1 Utility Corridor Trail, Metropark Station/Wood Avenue Pedestrian Bridge
Proposed Facilities	NJ Turnpike, Garden State Parkway, Highway Crossings Rail Freight Line, Rahway River, NJ TRANSIT Raritan Valley Line
Rail and Highway Crossings	





## Rahway River Corridor Photo Log



Rahway River Parkway



Freight Rail line crossing options, river, school, on-road



NJ TRANSIT rail line crossing options, Cranford Station or on -road



Narrow Roads

Army Corps Levee

Nomahegan Park





## Galloping Hill Corridor

The Galloping Hill Corridor is approximately seven miles long, six and a half miles of which (95 percent) are identified as having off-road potential. The limits of this corridor segment are Lenape Park in Cranford, and Weequahic Park in Newark.

### Land Use

The land use along the Galloping Hill Corridor is largely composed of parks and residential development. There are centralized business districts that the corridor connects along its alignment. This segment would serve to connect several local and regional parks along the Elizabeth River.

### Opportunities

New local connections that the ECG provides will improve access to area facilities and will encourage more non-motorized travel. One example is the link provided between Selfmaster Road and Globe Road, which would eliminate a gap in the local bicycling and walking network, and would allow the ECG to cross the Garden State Parkway along the existing underpass on Selfmaster Road. This is one example of how a regional facility such as the ECG can help to provide local connections, improving circulation through local communities along the way.

Developing the ECG along the Galloping Hill Corridor would realize a longstanding local vision for a path system along the Elizabeth River and its branches.

### Conclusions

The large majority of the route through this corridor is already planned by the county. The short on-road section proposed in Hillside will provide a connection between Union County's off-road greenway system and the urban core of New Jersey's largest city, Newark. This corridor will display the diversity of New Jersey's landscapes.



<i>Jurisdictions</i>	Union County
<i>Municipalities</i>	Cranford, Springfield, Kenilworth, Union, Hillside, Elizabeth
<i>Business Districts and Urban Centers</i>	Union Township, Elizabeth, Hillside Township,
<i>Attractions</i>	Lenape Park, Black Brook Park, Galloping Hill Park, Kawameeh Park, Elizabeth River Park, Kean University, Liberty Hall Museum
<i>Train Stations</i>	North Elizabeth: NJ TRANSIT North Jersey Coast Line; Union NJ TRANSIT
<i>Existing Sections</i>	Elizabeth River Park, Lenape Park
<i>Proposed Facilities</i>	Lenape, Black Brook Park, Union County Greenway (Watchung Reservation to Elizabeth River Park)
<i>Rail and Highway Crossings</i>	Rail Freight Line, Garden State Parkway, NJ TRANSIT Raritan Valley Line



## Galloping Hill Corridor Photo Log



Elizabeth River Parkway in Union Township



Elizabeth River Parkway in Hillside



Hillside On-road Section to Weequahic Park





## Galloping Hill Corridor Photo Log



Black Brook Park

Black Brook Park



Fairway Drive

Chestnut Street



Elizabeth River Parkway

Selfmaster Parkway



Morris Avenue





## Newark Corridor

The Newark Corridor is approximately six miles long, one and a half miles of which (25 percent) are identified as having off-road potential. The limits of this corridor segment are Weequahic Park and the Passaic River.

### Land Use

The land use along the Newark Corridor is largely high-density residential and commercial. The upcoming Newark Greenways project that the ECG will use as a route through Newark will improve connections among many neighborhoods.

### Opportunities

The City of Newark is about to undertake a major planning, design and construction project to create a greenway network throughout the city. The ECG plans to utilize a portion of the Newark Greenway to complete the route through Newark. This is a good example of "piggy-backing" on local efforts to efficiently complete and open the ECG.

### Conclusions

The Newark Greenway project will be implemented in phases. The first segment slated for design and construction is along Irvine Turner Boulevard. This segment will provide excellent connectivity for the ECG. Linking this first segment of Newark's Greenway with the Jackson Street Bridge will route ECG patrons to the Ironbound section of Newark and the Pennsylvania Station, meeting ECGA criteria to provide access to visitor attractions and transit stations along the way.

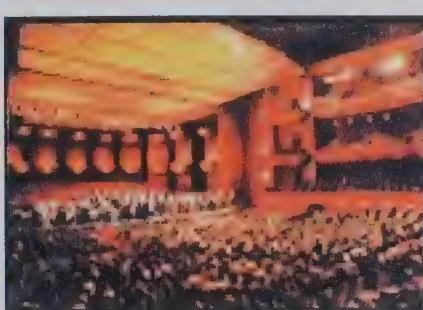


<i>Jurisdictions</i>	Essex County
<i>Municipalities</i>	Newark
<i>Attractions</i>	Passaic River, Weequahic Park, Newark Liberty International Airport, Ironbound District, Rutgers University, Newark Museum, New Jersey Institute of Technology, Essex County College, Riverfront Stadium, New Jersey Performing Arts Center, Branch Brook Park, Riverbank Park
<i>Train Stations</i>	Newark Penn Station (NJ TRANSIT: Northeast Corridor and North Jersey Coast Line, Raritan Valley Line; AMTRAK; and PATH systems, Newark Subway), Newark Liberty International Airport, Newark Broad Street Station
<i>Existing Sections</i>	Weequahic Park,
<i>Proposed Facilities</i>	Jackson Street Bridge Newark Greenway, Passaic Waterfront Walkway
<i>Rail and Highway Crossings</i>	NJ TRANSIT along existing roadways





## Newark Greenway Corridor Photo Log



Performing Arts Center



Riverfront Stadium



Weequahic Park



University Heights



Newark Subway



Irvine-Turner Blvd. Before &amp; After

Elizabeth Avenue  
Before & After

\* Note: Because the ECG Route through Newark will follow the Newark Greenway (currently under study), field investigation was limited. These photos instead show key attractions along the proposed route, along with photosimulations developed for the Newark Study.







## Historic Rail/Jersey City Corridor

The Historic Rail/Jersey City Corridor is approximately ten miles long, eight miles of which (80%) are identified as having off-road potential. The limits of this corridor segment are the Passaic River in Newark and the Hudson River to New York via ferry service. This may include the Statue of Liberty as a waypoint along the route if the ferry service for a one-way trip across is made available. Currently, service from Liberty State Park is available only to the Statue of Liberty and Ellis Island.

### *Land Use*

The land use along the Historic Rail/Jersey City Corridor consists mostly of dense urban commercial and industrial uses. Rail lines are routed on fill sections through Meadowland wetlands and open water, and continue through densely developed areas.

### *Opportunities*

The rail corridors that are proposed as part of the ECG route could not be easily established today, as the land acquisition and environmental permitting to create these corridors under current guidelines would be formidable. Locating the ECG along rail corridors could possibly be accomplished through sharing the corridor with active rail, using a rail-with-trail configuration. This assumes that, in areas that are currently abandoned, rail service may be re-established without affecting the shared use of the corridor with the ECG. It should be noted that there are over 60 rail-with-trail corridors in the United States operational today.

### *Conclusions*

The Historic Rail/Jersey City Corridor has some of the most dynamic and dramatic land use variations along the Study area, and possibly along the east coast. There are excellent off-road inactive rail corridors that offer prime opportunities for reuse with a new transportation purpose, bicycling and walking. These corridors will be difficult to access due to the major constraints at several of their terminus points. Using these highly valuable corridors will require major development efforts and construction costs. However, alternative off-road corridors that would accommodate bicycle and pedestrian traffic through the Meadowlands and this densely populated and developed area are unavailable. The historic rail segments along this corridor meet the goals of the ECG very well. Establishing the ECG along the proposed route can offer many benefits to local and regional communities, and the resulting facility could become a world-class attraction.

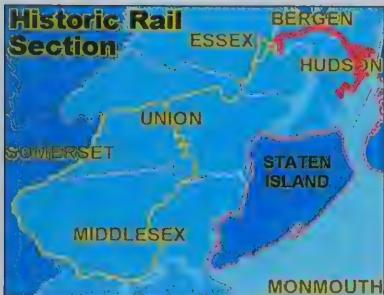


<i>Jurisdictions</i>	Hudson County,
<i>Municipalities</i>	Harrison, E. Newark Kearny, Secaucus, Jersey City,
<i>Business Districts and Urban Centers</i>	Norfolk Southern Rail, PSE&G, NJ TRANSIT, NJDEP
<i>Attractions</i>	Hackensack River, Hudson River, Newark Bay, Liberty State Park, Lincoln Park, Hoboken, Jersey City Newport Mall, Hudson River Waterfront, NYC Skyline, Ellis Island, Statue of Liberty, Harrison, Meadowlands, Hudson County College, St. Peter's College, Laurel Hill County Park, Meadowlands State Wildlife Reserve, Liberty Science Center Secaucus: NJ
<i>Train Stations</i>	TRANSIT, Hoboken NJ TRANSIT and PATH, Hudson-Bergen Light Rail
<i>Proposed Facilities</i>	Hudson River Waterfront Walkway, MetroStars Soccer Stadium, Bergen Arches
<i>Rail and Highway Crossings</i>	I-280, Route 7/Belleville Turnpike, Route 1&9, I- 78, NJ Turnpike





## Historic Rail/Jersey City Corridor Photo Log



Historic Conrail Line at Passaic River and Harrison



Conrail Line at Route 7/Belleville Turnpike



Hackensack River Crossing Turnstile Drawbridge



Conrail Line at  
PSE&G Plant in  
Kearny







## Historic Rail/Jersey City Corridor Photo Log



Bergen Arches Western Portal – multiple active rail lines



Bergen Arches eastern portal – active rail freight



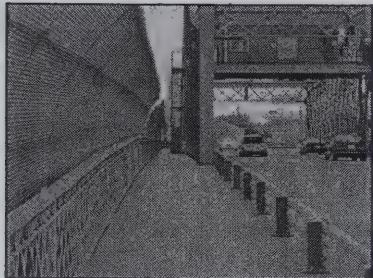
6<sup>th</sup> Street Embankment – requires multiple bridge replacements



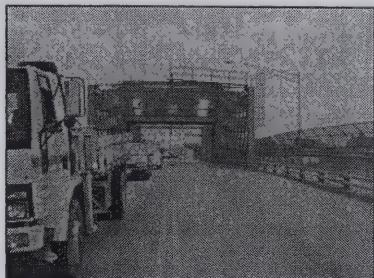
# HARRISON, NEW JERSEY

## Franklin E. Rodgers Bridge

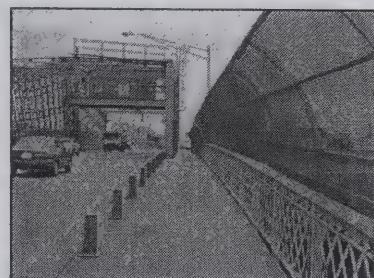
Over the Passaic River between Essex & Hudson Counties



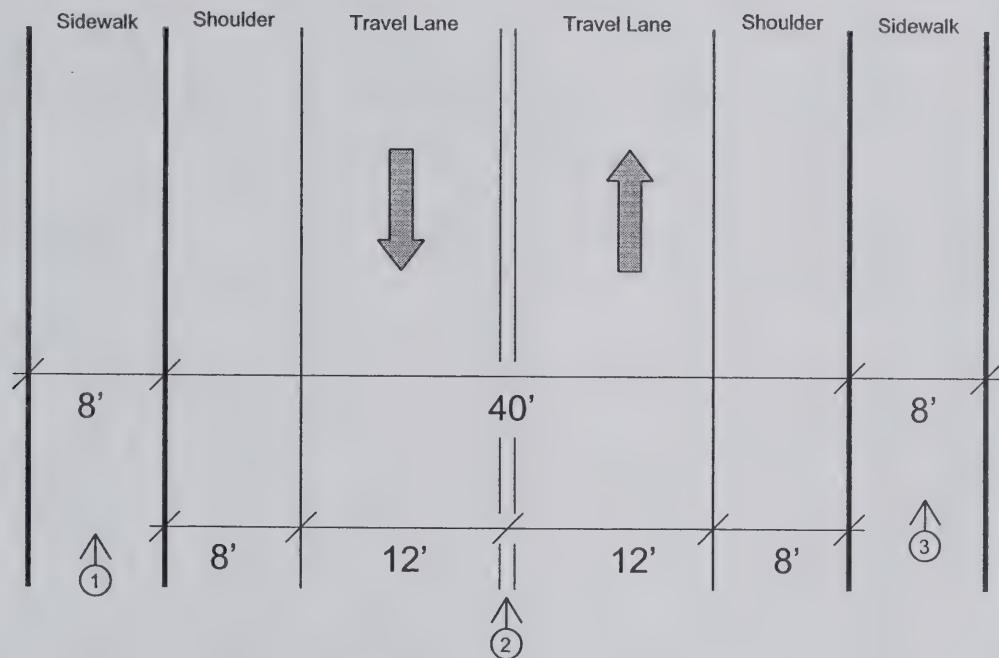
① West



② East



③ East



# HARRISON, NEW JERSEY

## Franklin E. Rodgers Boulevard

### At the PATH



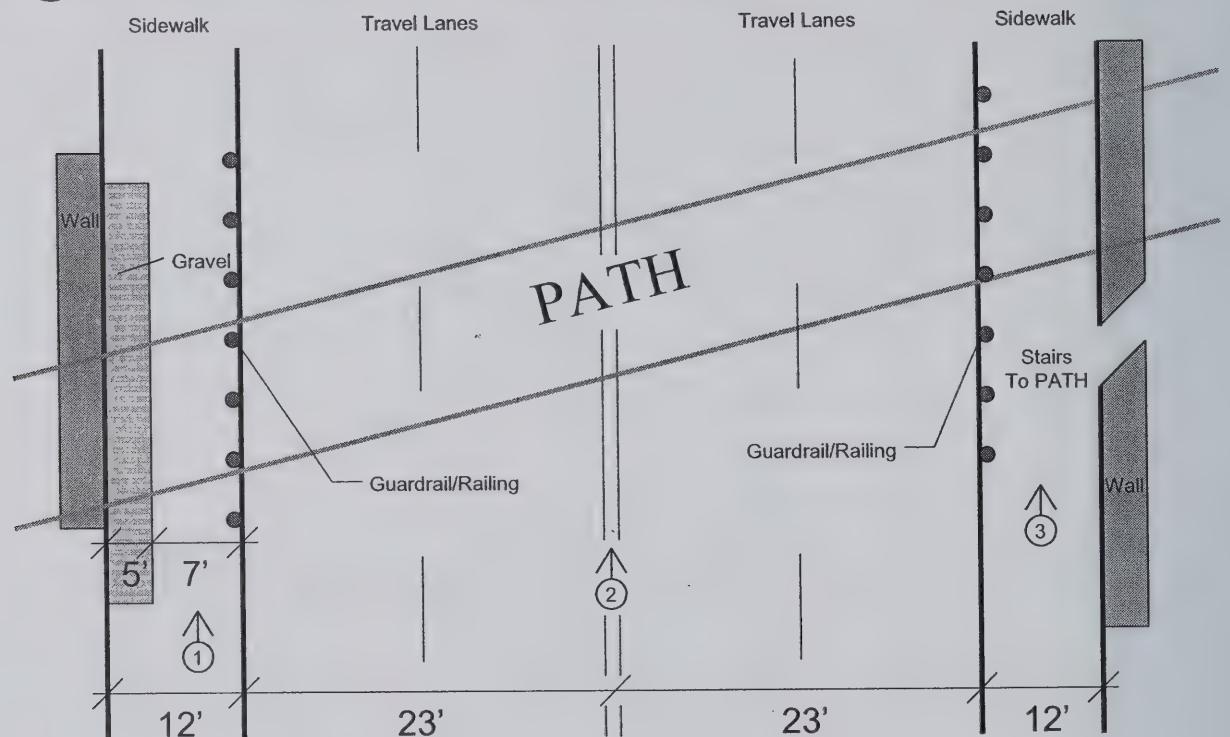
① West



② East



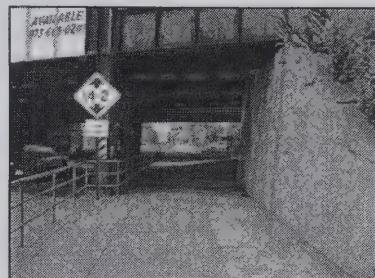
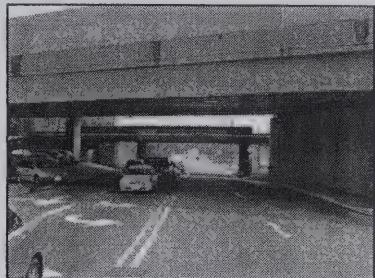
③ East



# HARRISON, NEW JERSEY

## Franklin E. Rodgers Boulevard

At Conrail Rail Line and Highway 280



① South

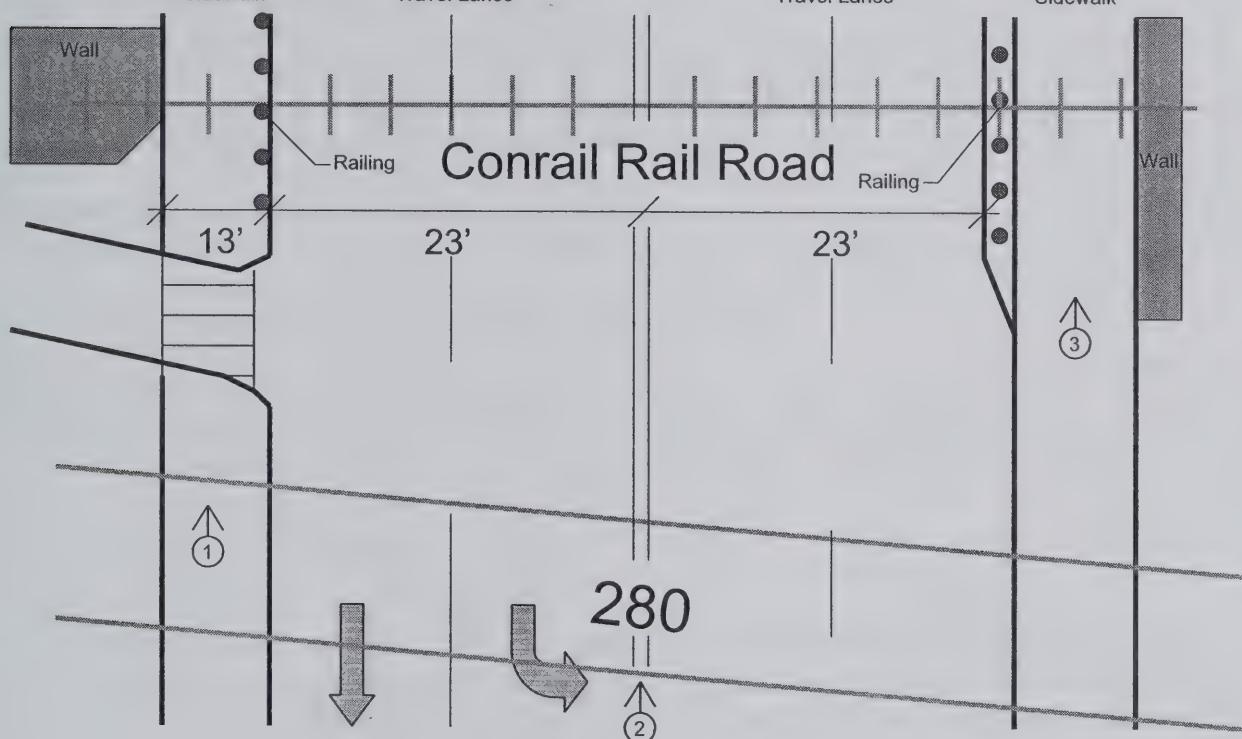
Sidewalk

② South

Travel Lanes

③ South

Sidewalk





## Alternative Routes

Several alternative routes were explored in the process of identifying the recommended route. Of the alternative routes investigated, two corridors, the Green Brook and Watchung corridors were studied in some detail, but were ultimately dropped by committee vote in favor of the primary route described above. Although the Green Brook and Watchung corridors are not part of the proposed primary route, they are still potentially viable alternatives and could become part of an ECG alternate route that provides access to additional parks, historic areas, transit options and commercial centers. The following is a brief description of the Green Brook and Watchung route alternatives. The Green Brook and Watchung corridors must be considered together.

### *Green Brook Corridor*

The Green Brook Corridor is approximately ten miles long, four miles of which (40%) is identified as having off-road potential. The limits of this corridor segment are the designated portion of the East Coast Greenway along the Delaware and Raritan Canal Towpath at Main Street in South Bound Brook, and the southwestern limit of the Watchung Reservation at Park Avenue over Route 22 in Scotch Plains. The land use along the Green Brook Corridor is largely parks and residential. There are centralized business districts including the City of Plainfield that the corridor connects along its alignment. This segment would serve to connect many local and regional parks along the Green Brook watercourse.

The Green Brook Corridor, in conjunction with the Watchung Corridor described below, provides the most direct link between the D&R Canal Towpath and the Galloping Hill Corridor. Much of the Green Brook Corridor is under study by local municipalities and Middlesex County. Currently 5,200 feet of the proposed 8,400-foot Green Brook Trail through Plainfield is temporarily on-road pending property acquisitions to create an off-road option.

### *Watchung Corridor*

The Watchung Corridor is approximately seven miles long, three miles of which (45%) is identified as having off-road potential. The limits of this corridor segment are the northeastern limit of the Green Brook Corridor at Park Avenue over Route 22 in Scotch Plains and Lenape Park in Cranford. The land use along the Watchung Corridor is largely parks and residential. There is a major segment that would traverse the Watchung Reservation, which falls under the Union County Parks jurisdiction. This segment would serve to connect many local and regional parks along the corridor.

Routing the ECG along the Watchung corridor would provide a more geographically varied experience through New Jersey. The elevation gain approaching the 450-foot high peak in the Watchung reservation would provide vistas across the state. (The other routing option along the Rahway River is less than 100 feet in elevation.)



The majority of the Watchung Corridor's alignment is currently open to the public, although there are policy restrictions on bicycle use through the Watchung Reservation. The creation of a new Watchung Reservation shared use path would greatly enhance the value of this segment for ECG use; the alternative is a longer on-road route along narrow and busy roadways. The existing park roadways are not bicycle or pedestrian compatible.

### Other Corridors Reviewed

Other corridors reviewed within the region but that were not selected by the Advisory Committee for detailed study during this project include:

*Middlesex County Open Space Plan Corridors* – There were several corridors identified for future greenway development in the Plan. Most of these were deemed to be long-term projects that required major land acquisition and generally did not provide very good connections to the region's major attractions.

While these corridors are generally off-road in alignment, they do not provide direct connection to transit stations or central business districts. The land use is generally forested stream corridors, not providing the varied use that is promoted by ECGA.

*Union County PSE&G Corridor* – This corridor provided excellent off-road potential but had poor connectivity to the surrounding available segments, and runs perpendicular to the desired direction of the ECG through the region. There are not direct connections to central business districts or to transit stations along this corridor segment.

*St. Gertrude's Cemetery* – There are several options for connecting the Middlesex County and Union County portion of the Rahway River Corridor. All of these involve some level of on-road route alignment. One alternative for minimizing this is to utilize some of the St. Gertrude's Cemetery property, to avoid using the local street network. The Advisory Committee recommended not pursuing this alignment alternative. There are not direct connections to central business districts or to transit stations along this corridor segment.

*Elizabeth River, Elizabeth City Connection* - This corridor provided good off-road potential along the northern half of the segment and great connection to the major central business district of Elizabeth. However, it had poor connectivity to the east, and would provide a routing that would bypass Newark, a required route waypoint.

*Essex County Second Watchung Ridge Alignment* – A major corridor segment concept that would include several additional recreation areas was considered along the north/south ridge of the second Watchung Mountain. This would follow the Lenape Trail and connect the South Mountain Reservation, Eagle Rock Reservation and other recreational facilities. This alignment would tie in several additional transit stations and minor central business districts along the route. This alignment proved to be very circuitous, and current concepts only accommodate pedestrian, and sometime equestrian, traffic. Providing a bicycle compatible facility was discouraged during County outreach.



*Historic Conrail Bridge over the Passaic River* – The historic Conrail (Newark Industrial Track) drawbridge over the Passaic River is presently stuck in the open position. This is a major constraint to utilizing this rail corridor. During County outreach meetings it was presented that the cost to dismantle this structure would be astronomical, due to the massive nature of the drawbridge. In order to officially abandon the rail line, the bridge must be dismantled. For this reason the rail line has not been officially abandoned, and there are no current plans to either dismantle or rehabilitate the bridge. This very short segment would not connect any additional land uses, transit stations or new central business districts.

*Liberty – Water Gap Trail* – Within Hudson County, the proposed Liberty Water Gap Trail is oriented toward local interpretation of many historic and other attractions. It also utilizes Truck Route 1&9 to cross the Hackensack River, a very high traffic volume roadway, which does include sidewalks for pedestrian traffic, but is not very accommodating for bicycle traffic. It does connect several local business districts within Jersey City, and the Journal Square PATH station. However it has a very circuitous alignment and is focused on localized travel, not through connections. For these reasons the Advisory Committee did not consider the vision of the two projects to be compatible.

*Belleville Turnpike/Route 7* – The Belleville Turnpike was one of the first alternative routing options considered for traversing the Kearny area and Hackensack River. This was considered a fall back option, due to the fact that it is entirely on-road. The traffic volumes are very high, and there are numerous major industrial land uses along the corridor that would create additional conflicts for potential users. There are no direct connections to transit stations or central business districts. The land uses along this segment vary between industrial and Meadowland open space.

*The Hudson River Waterfront Walkway to the George Washington Bridge (GWB)* – The New York Chapter of the ECGA directed that the gateway into New York should be located in the vicinity of lower Manhattan, preferably leading directly into Battery Park. The George Washington Bridge connection to NY does not meet this goal. NY and NJ will continue to be linked by the GWB, and there will be pathways available to non-motorized traffic on each bank of the Hudson River. If ECG patrons prefer to use the GWB option, which is free of charge and available daily, rather than pay for a ferry or the PATH train, that option will be at their disposal.

*The Hudson River Waterfront Walkway in Bayonne* – This is a segment of the Hudson River Waterfront Walkway that provides access to both the Hackensack and Hudson River waterfronts around Bayonne. There are numerous connections to the Hudson Bergen Light Rail line, as this alignment circles the end of that transit line. The routing is largely on-road, using the existing sidewalk network through Bayonne City. Due to the lack of regional connectivity and the circuitous routing through Hudson County, the Advisory Committee did not recommend this alignment for further study.

# **East Coast Greenway, Northern NJ Route Location Study Proposed Route Overview Map with Identified Potential Routes Regional Overview**

Designed by RBA

This map was developed using New Jersey Department of Environmental Protection Geographic Information System digitized data, but this secondary product has not been verified by the NJDEP and is not state-maintained.

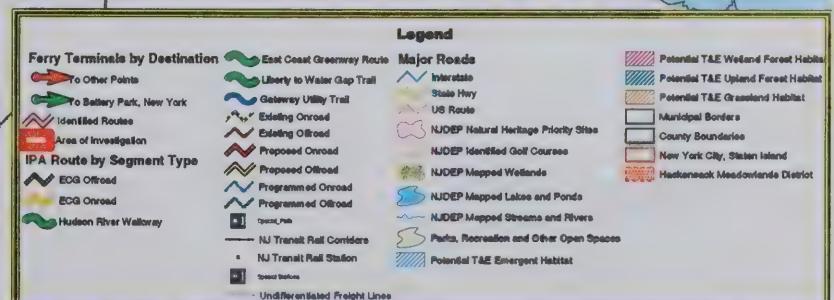


**APPENDIX B** General Strategic Options which are recommended to assist Government in dealing with the situation in Northern Ireland. These options are not necessarily sequential or ordered in time or priority. They are also not necessarily comprehensive. Some other options outside the scope of the broad and most viable categories listed below may be considered by Government. However, they do not cover areas of human rights which are widespread and serious.

**APPENDIX C** Required Information is a simplified representation of methods used by members of the civil and criminal justice systems in Northern Ireland to collect information in a manner which reflects the underlying difficulties. It is not intended to be a detailed description of the process used in each individual case.

**APPENDIX D** Identified Problems are those problems which are likely to affect the outcome of the peace process and the extent of the political and social integration of the community. These problems are identified by the following broad categories: (a) Economic and Social; (b) Political; (c) Legal and Constitutional; (d) Religious; (e) Ethnic and Nationalist; (f) Territorial; (g) International; (h) Security; (i) Cultural; (j) Environmental; (k) Health and Welfare; (l) Education; (m) Media; (n) Sports; (o) Transport; (p) Infrastructure; (q) Land; (r) Natural Resources; (s) Energy; (t) Space; (u) Nuclear; (v) Chemical; (w) Biological; (x) Radiological; (y) Geological; (z) Geographical.

**APPENDIX E** Identified Problems are those problems which have already emerged from the peace process and which require urgent attention and early resolution. These problems are identified by the following broad categories: (a) Economic and Social; (b) Political; (c) Legal and Constitutional; (d) Religious; (e) Ethnic and Nationalist; (f) Territorial; (g) International; (h) Security; (i) Cultural; (j) Environmental; (k) Health and Welfare; (l) Education; (m) Media; (n) Sports; (o) Transport; (p) Infrastructure; (q) Land; (r) Natural Resources; (s) Energy; (t) Space; (u) Nuclear; (v) Chemical; (w) Biological; (x) Radiological; (y) Geological; (z) Geographical.







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## Chapter 4: Study Process

### Methodology Overview

Because of the large size of the study area, encompassing five counties, a key strategy to identify potential routes and to narrow the selection to a recommended route was to engage people and organizations most familiar with conditions and opportunities within each county. A Study Advisory Committee with representation from counties, state agencies, and interested non-profit organizations guided the decision-making process through the duration of the study, and helped to identify the people and organizations with the necessary local knowledge.

The objective of Phase 1 was to identify up to three corridors that met broad criteria for locating the East Coast Greenway. Corridor alignments were identified that would connect the established locations for the route, the D&R Canal in South Bound Brook, the City of Newark and lower Manhattan in New York. In addition, corridors for consideration were to include major regional visitor attractions, "downtown" centers, and transit stations, as well as parks, open space and bicycling and walking facilities (both existing and proposed) to increase the potential for off-road travel.

The objective of Phase 2 was to further evaluate the selected corridors and to recommend a primary route alignment. This was initially accomplished through targeted fieldwork and a preliminary environmental assessment to further qualify opportunities and constraints. With this additional level of information, the Study Advisory Committee once again assisted in narrowing the selection and guided the process of engaging stakeholders in further evaluating and refining the proposed corridor alignment. With the selection of a single recommended corridor, the final step was to identify a potential route within the corridor. The proposed route alignment was refined through a review process that included interviews, targeted meetings, and solicited reviews by key stakeholders along the proposed route.

### *Laying the Foundation for Stakeholder Involvement*

At the outset of the study, letters were sent to county planning, parks and engineering departments, introducing the project and requesting copies of relevant planning documents that could be used to identify potential greenway locations.

The Study Advisory Committee was then established. The Advisory Committee consisted of representatives from counties in the study area, the New Jersey Department of Transportation, the Department of Environmental Protection, several interested non-profit organizations, and the New Jersey Committee for the East Coast Greenway. The role of the committee was to:



- Review the project scope, schedule and objectives
- Review preliminary routing concepts, potential destinations, and existing trail/open space information,
- Identify potential involvement of other agencies and seek contacts,
- Solicit additional support data, files and information,
- Identify other relevant projects in the study area.

### **Data Collection and Mapping**

Information for evaluating corridor alternatives was collected from a variety of sources. Copies of related plans, such as the *New Jersey State Trails Plan*, *New Jersey Bicycle and Pedestrian Master Plan, Phase 2*, county master plans, open space and recreation plans, and similar regional documents, were collected from state, county and local stakeholders. Review of these documents revealed both existing and proposed bicycle and walking facilities within the study area.

Two levels of base mapping were prepared. The first level was used to illustrate potential corridors during Phase 1 of the project with a Geographic Information System (GIS) platform. The mapping incorporated GIS information collected from county government and state agencies into a project GIS database. Four county base maps were developed, with Middlesex and Somerset Counties included together.

For Phase 2, a second level of base mapping at a larger scale was developed using an aerial photography platform to illustrate the proposed route within the recommended corridor.

The project mapping continued to be refined throughout the course of the project to include the results of research, fieldwork, and stakeholder input. The maps served as an effective tool both in gathering information from stakeholders and in communicating the results of each step in the study process.

### **Narrowing the Selection**

The primary strategy to identify potential corridors in Phase 1 was to hold a series of county-level working meetings with representatives from county planning, transportation and parks departments, along with other organizations with strong local knowledge and interest. These included representatives from a range of non-profit and governmental organizations, such as bicycle touring clubs, the Meadowlands Commission, and park management organizations.

At each of the meetings, participants reviewed county base maps that illustrated the defining end points and major waypoints to be included along the route. Group exercises were held to identify the location of additional potential destinations within the county that would meet the criteria for corridor selection. Participants then "connected the dots" to reveal a series of potential corridors that could be strategically linked together. These meetings generated a series of potential corridors and a wealth of information about additional resources, regional projects, and key stakeholders.



Based on the results of the county-level meetings, potential corridors were further evaluated to identify three continuous alignments through the project area that best met the East Coast Greenway criteria. Findings from the county-level meetings and the study investigation were presented to the Study Advisory Committee and the New Jersey Committee for the East Coast Greenway. A joint meeting of these groups was held to review results and to secure the approval of three potential corridors for further study. The meeting memorandum included in the appendix outlines the discussion and documents decisions that were made.

With the identification of several potential alignment approved by the Study Committee and the NJ Committee for the East Coast Greenway Alliance, Phase I was successfully concluded.

### The Proposed Route

Phase 2 continued evaluation of the three potential corridor alignments. This included further data collection, a Preliminary Environmental Screening, and targeted field investigation to further identify opportunities and constraints.

The Preliminary Environmental Screening involved the collection of digital data, including wetlands, floodplains, USGS flood-prone areas, potential threatened and endangered species habitat, rivers, lakes, NJDEP known contaminated sites (2001), and soils and tidelands. The purpose of this preliminary environmental screening was to identify "fatal flaws" or major environmental constraints within the selected corridors. Although corridors under consideration may include areas with wetlands or pass near hazardous waste sites, the recommended route could be selected to minimize exposure to these areas. It should be noted that this investigation was not intended to complete all environmental requirements that may be necessary for the further development of the East Coast Greenway. Rather, the objective was to inform the alignment selection process. The results of the Preliminary Environmental Screening are documented in a separate Technical Memorandum.

Field investigations were conducted at targeted locations to gather first hand knowledge of opportunities and constraints. To support this effort, interviews were held with key stakeholders, several of whom acted as guides along proposed alignments.

Based on the investigation results, a comparison matrix of the alternative corridors was developed as displayed on the following page. Findings were presented to the Study Advisory Committee for their review. After considering each of the alternatives, the Committee voted to determine a primary recommended alignment. The resulting vote was overwhelming in favor of the corridor that is presented in this report. The meeting memorandum of September 9, 2003, documents the discussion and conclusion of the Committee, and is included in the Appendix.

The recommended corridor was then presented in detail to the New Jersey Committee for the East Coast Greenway, who confirmed their support for the selection through a majority vote. The meeting memorandum of September 23, 2003, documents the discussion and conclusion of the NJ Committee, and is also included in the Appendix.

## Screening Matrix

	Phase 1 Screening for ECG Criteria						Phase 2 Screening for Significant Opportunities							
		Total length (miles)*	Off-Road Length (miles)*	Transit %	Business Districts # of areas	Piggy-Back Other Projects			Parks/ Open Spaces Number	Historically Significant Properties*** Number	Attractions # / mile	Historical Sites per mile Number	Tourism Sites	Topography
						# Station Connections**	Number of Piggyback Projects	Total Length of Piggybacks (miles)						
1A	Green Brook/ Watchung	17.0	7.1	42%	4	5	8	13	76%	11	100	6	37	[69-398]: 331'
1B	Raritan/ Rahway	32.3	26.4	82%	5	7	10	17	54%	12	137	4	41	[26 - 98]: 72'
2	Galloping Hill	6.8	6.5	96%	1	3	1	6	85%	5	22	3	10	[53 - 98]: 45'
3	Newark	4.7	1.3	28%	5	5	1 major network	5	100%	4	243	52	21	[14 - 82]: 68'
4	Historic Rail	10.1	8.2	81%	18	4	2	2	20%	5	168	17	29	[10 - 114]: 104'
East Coast		* Approximate distance												
		** Stations within close proximity of route												
		*** NJ & National Register of Historic Places within municipality												



## Parallel Route Option Comparison

Phase 1 Screening for ECG Criteria							Phase 2 Screening for Significant Opportunities							
										Attractions				
		Total length	Off-Road Length	Transit	Business Districts	Piggy-Back Other Projects			Parks/ Open Spaces	Valued Enviro. Protection Locations <sup>3</sup>	Historically Significant Properties <sup>4</sup>	Tourism Sites	Topography	
		(miles) <sup>1</sup>	(miles) <sup>1</sup>	%	# Station Connections <sup>2</sup>	# of areas	Number of Piggyback Projects	Total Length of Piggybacks (miles)	% Piggybacks of Total Length	Number	Number	Number	Number	Range
Green Brook/ 1A Watchung		17.0	7.1	42%	4	5	8	13	76%	11		100	37	[69-398]: 331'
	MORE DIRECT	LESS THAN HALF HAS OFF-ROAD POTENTIAL	NJTRANSIT STOPS	SMALLER CENTERS	3/4 OF LENGTH PREVIOUSLY PROPOSED BY OTHERS			~EVEN	SMALL POCKETS	SIMILAR	SIMILAR	STEEP SECTIONS		
										OF HIGH VALUE AREAS			OFFER VISTAS	
Raritan/ 1B Rahway		32.3	26.4	82%	5	7	10	17	54%	12		137	41	[26 - 98]: 72'
	SEE MORE OF NJ	>80% OFF-ROAD MEETS ECG #1 GOAL	2 AMTRAK STATIONS	2 MAJOR URBAN	HALF THE TOTAL LENGTH NEEDS LOCAL CHAMPIONS			~EVEN	LARGER POCKETS	SIMILAR	SIMILAR	GENERALLY LEVEL AND		
			NEW BRUNSWICK	CENTERS						OF LOWER VALUE AREAS			EASIER TO TRAVEL	
			METROPARK	NEW BRUNSWICK										
				ELIZABETH										
East Coast Greenway	1 Approximate distance. Any uncertain areas were assumed to be on-road 2 Stations within close proximity of route 3 Areas detailed by the Upper Raritan Watershed Association as meeting water resource protection criteria 4 NJ & National Register of Historic Places within municipality													





Finally, the recommended corridor was presented at the Annual Meeting of the East Coast Greenway Alliance in November 7, 2003. As a result, the Alliance board voted to add the City of Newark and Jersey City as the 24<sup>th</sup> and 25<sup>th</sup> major cities to be included along the East Coast Greenway, acknowledging their support for the study's proposed corridor.

Based on the results of research and acceptance of the proposed route by these Committees and the national ECGA, further study focused on gaining stakeholder input and acceptance of the proposed route, and refining a route alignment within the recommended corridor. In addition to further field investigation and stakeholder interviews, the recommended route was presented at a variety of stakeholder venues.

To gain municipal input and support, two meetings were held to present the recommended alignment to municipal representatives, legislators, and other key stakeholders. The New Jersey Department of Transportation sent letters of invitations to every municipality within each county along the route, along with other potential stakeholders. A meeting in Jersey City was held to focus specifically on the route through Essex and Hudson Counties, while another in Edison focused on the route through Somerset, Middlesex and Union Counties. These meetings generated valuable additional insight into the proposed alignment.

The study's recommended route incorporates findings from all these stakeholder meetings. In addition, map sets were provided to many of the participating stakeholder organizations for final review.

The selection process for the recommended route for the East Greenway through northern New Jersey engaged the advice and assistance of hundreds of people representing dozens of organizations. The following list summarizes the meetings held during study, during which many individuals contributed their valuable insights. A separate list identifies many of the people who were individually interviewed during the course of the study.

It is assumed that the refinement of the recommended route will continue into the future during future planning and development stages. One of the most valuable outcomes of the study may prove to be the foundation of community support established through the collaborative process that was used to identify and select the recommended route. The continued support and advice of the many organizations that enthusiastically participated in this study will be invaluable in further development of the East Coast Greenway through northern New Jersey.



## Meetings

### Phase I

1. January 30, 2003 – Project Kickoff
2. February 13, 2003 – Union County Data Collection
3. March 24, 2003 – NJ ECG
4. April 9, 2003 – Advisory Committee #1
5. May 1, 2003 – Middlesex County Data Collection
6. May 2, 2003 – Hudson County Data Collection
7. May 6, 2003 – Essex County Data Collection
8. May 27, 2003 – Advisory Committee #2
9. June 3, 2003 – Joint Advisory and NJ ECG Meeting
10. June 19, 2003 – Client Oversight Meeting
11. July 21, 2003 – Joint NJ ECG – Advisory Committee Meeting

### Phase II

12. August 18, 2003 – NJTPA Presentation
13. September 6, 2003 – Weequahic Park Association and NJ ECG
14. September 9, 2003 – Advisory Committee Meeting #1
15. September 18, 2003 – Jersey City Mayor Presentation
16. September 23, 2003 – NJ ECG Meeting #2
17. October 16, 2003 – Union County Freeholders Presentation
18. November 7, 2003 – ECGA Annual Meeting, Charleston, SC
19. November 12, 2003 – NJDOT Finance/Management Meeting
20. November 24, 2003 – Southern Reach Stakeholders, Edison
21. December 2, 2003 – NJ ECG Meeting
22. December 16, 2003 – Jersey City DPW Coordination
23. December 16, 2003 – Northern Reach Stakeholders, Jersey City
24. January 29, 2004 – Advisory Committee Meeting #2

**Interviews**

Name	Representing	Date
1. Joseph Barris	T&M Associates	April 21, 2003
2. David Lutz	NY East Coast Greenway	April 29, 2003
3. David Lutz	NY East Coast Greenways	April 30, 2003
4. David Lutz	NY East Coast Greenways	May 16, 2003
5. Steven Marks	Hudson Co.	May 20, 2003
6. Bruce Riegel		May 21, 2003
7. Gary Toth	NJDOT	May 21, 2003
8. Rick Hammer		May 21, 2003
9. Yosry Bekhiet		May 21, 2003
10. David Lutz	NY East Coast Greenway	May 30, 2003
11. Stephen D. Marks	Office of Strategic Revitalization	May 30, 2003
12. Stephen D. Marks	Hudson County	May 30, 2003
13. Frank Wong	Rutgers	June 17, 2003
14. Jack Robertson	Hillside Police Department	June 18, 2003
15. Gaetano (Guy) Gaspari	Edison Township	June 24, 2003
16. Walter Stochel	Middlesex Greenway Coalition	June 24, 2003
17. Gaetano (Guy) Gaspari	Edison Township	June 24, 2003
	Middlesex Greenway Coalition	June 24, 2003
18. Peter Richkus	Urbitran Associates	June 24, 2003
19. Jimmy Lynch	Union County	June 27, 2003
20. Denise Nichol	Middlesex County Water	July 1, 2003
21. Caroline Granick	Middlesex County Planning Board	July 3, 2003
22. Dan Bernier	Union County Parks & Recreation	July 7, 2003
23. Joseph Manning	Boro of Middlesex	July 7, 2003
24. Steve Marks	Office of Strategic Revitalization	July 8, 2003
25. Frank Wong	Rutgers University Planning Dir.	July 14, 2003
26. Rachael Kennedy	Jersey City Planning	August 20, 2003
27. Dan VanAbs & Amy Shallcross	NJ Water Supply Authority	September 2, 2003
28. James Badgely	NJDOT	December 1, 2003
29. Rick Crawford	Norfolk Southern Corp.	December 2, 2003
30. Jeff Sias	Cranford Engineer	December 2, 2003
31. Stephen Marks	Hudson Co. Office of Strategic Revitalization	December 2, 2003
32. Rick Crawford	Norfolk Southern Corp.	December 2, 2003
33. Sean Ryan	Union County, Union County Parks Dept.	December 3, 2003
34. Bill Neyenhouse	NJDEP	December 3, 2003
35. Bill Goble	Cranford Township	December 11, 2003
36. Mariano Vega	Hudson County	December 12, 2003



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## **Chapter 5 Implementing the Proposed Route**

### **Implementation Overview**

As with all of the 2,600 miles of the East Coast Greenway (ECG), implementation of the proposed route through northern New Jersey will rely on the use of completed local facilities that together with new trail segments will comprise a continuous route. The proposed local projects that have been identified through this study are displayed on the Aerial Photography Route Layout, and are summarized in the following Proposed Project Development Status spreadsheet. These two exhibits provide a summary of the proposed alignment of the ECG and a description of each segment. The Proposed Project Development Status spreadsheet details whether the segment has existing, currently planned or proposed bicycling and walking facilities. It also differentiates between proposed on-road and off-road segments and identifies the jurisdiction governing each segment and major crossing.

The following discussion outlines specific recommendations for the ECG by county and municipality. Identifying projects by municipality facilitates local planning efforts to readily move ECG concepts forward segment by segment.

This study focused on defining corridors with adequate existing physical space to construct the path segments, structures and crossings required to create a continuous greenway. To date, there has been no investigation of property ownership, which likely includes both publicly- and privately-owned lands. Although many of the proposed off-road segments of the ECG are routed through public parks, other segments were identified as potentially off-road based on the interpretation of street maps and other public domain documents, as well as limited site inspection. Property ownership identification will need to be completed in future work, and will likely begin with a review of municipal tax maps. Easement on private property or property donations will likely be necessary to implement the ECG.

The physical challenges anticipated in constructing the greenway vary greatly from segment to segment. The typical ECG treatments will be a 12-foot wide shared use path for the off-road segments, and bike lanes and sidewalks for the on-road connecting segments. There are existing paths that will only need minor surface enhancements and wayfinding signs, such as the D&R Canal Towpath in Mercer, Somerset and Middlesex Counties. There are public parks with existing paths that will require extension to property boundaries to connect with new adjacent facilities, such Johnson Park's pathway network in Highland Park. There are parks where new shared use paths are recommended to augment the existing park roadway systems, such as Weequahic Park in Newark and Merrill Park in Woodbridge. These segments will also need enhanced crossings of the roadway network that typically presents barriers to a continuous East Coast Greenway.



There are major construction elements that are recommended, such as converting unused rail rights-of-way for shared use paths. These can be located along the actual railroad track alignment or off to one side, which preserves the track for future reactivation. Shared use of a rail corridor, known as "rails-with-trails", can be a viable option with cooperation from both railroad and trail management. There are also recommendations for new bicycle and pedestrian bridges to link segments of the 6<sup>th</sup> Street Harsimus Embankment in Jersey City, to cross the Raritan River parallel to the Landing Lane Bridge in New Brunswick, and to cross freight rail lines in Jersey City. These will each be significant construction projects that are necessary to provide a continuous greenway across northern New Jersey.

Implementation of the proposed route will require close coordination with the numerous managing agencies with jurisdiction over route segments, in addition to the twenty-two municipalities and five counties along the route:

- NJ Department of Transportation
- NJ Transit
- The New Jersey Turnpike Authority
- Conrail
- Norfolk Southern & CSX Railways
- NJ Department of Environmental Protection
- The Army Corps of Engineers

Most of the coordination with these agencies will focus on locations where the route crosses property under their jurisdiction, since the majority of the ECG will be located on county and municipal property. The most critical coordination will be with the railways, to ensure that mutually agreeable solutions can be achieved for segments in Middlesex and Hudson Counties that are proposed along railroad property.

Preliminary contacts were made with some of the managing agencies, such as Norfolk Southern. Additional outreach to property owners and managing agencies by the NJ Committee for the ECG and other project sponsors will be an important step in the implementation process, beginning with requests for letters or resolutions of support.

## Implementation Issues

### Crossings

A continuous ECG crosses many water bodies, rail lines and highways that present physical barriers to the route. Identifying potential crossing locations was a critical strategy that defined feasible alignments in the selection process. The proposed route makes use of existing crossing locations as much as possible; the study recommends new crossings only where no viable alternatives could be found. Once preferred crossing locations were determined, connecting segments between crossing locations were identified, making use of existing off-road facilities as much as possible. Where no suitable crossing facilities were found, currently planned facilities were utilized. Where no facilities had been planned, the study proposes new conceptual crossing solutions to provide for a continuous route.



The major new crossings proposed along the ECG route are as follows, listed from south/west to north/east:

Crossing	County	Proposed Facility
Raritan River, New Brunswick	Middlesex County	New shared use path bridge
Route 27, Highland Park	Middlesex County	New waterfront shared use path under roadway
NJ Turnpike, Edison	Middlesex County	New shared use path along unused rail crossing under highway
Route 440, Woodbridge	Middlesex County	New shared use path along unused rail crossing under highway
Conrail Rail Line, Cranford	Union County	New waterfront shared use path under rail line
NJ Transit Rail Line, Cranford	Union County	New waterfront shared use path
Route 21, Newark	Essex County	New shared use path bridge
Hackensack River	Essex/Hudson County	New shared use path bridge/or ferry
Freight Rail Lines, Jersey City	Hudson County	New shared use path bridge
6 <sup>th</sup> Street Harsimus Embankment, Jersey City	Hudson County	New shared use path bridges (seven)

Each of these locations will require a major construction project to accommodate the proposed route of the East Coast Greenway.

### *Other Major Construction*

In addition to the crossings listed above, there are several locations along the proposed ECG route that will require substantial earthwork, grading, drainage or other construction activities to make the ECG a physical reality.

These major construction projects involve both sections that are currently in some stage of planning by local or regional sponsors, and sections that are proposed by this study to link existing or planned facilities. The major construction projects are highlighted in the following table, categorized by planning status. These include:

**Currently planned major path construction projects listed from south/west to north/east:**

Segment	County	Planned By
River Front Path 1, Highland Park	Middlesex County	Highland Park
River Front Path 2, Highland Park	Middlesex County	Middlesex County
Raritan River Seaport Trail	Middlesex County	Private developer, Edison
Middlesex Greenway	Middlesex County	Middlesex County
Route 1 Utility Corridor	Union County	NJDOT
Lenape Park Trail	Union County	Union County
Bergen Arches	Hudson County	Hudson County
6 <sup>th</sup> Street Embankment	Hudson County	Hudson County
Hudson River Waterfront Walkway	Hudson County	Hudson County



ECG proposed major construction projects listed from south/west to north/east:

Segment	County	Managing Agency
Raritan Center Rail to Trail	Middlesex County	Middlesex County
Globe Road	Union County	Union Township
Newark Industrial Track	Hudson County	Norfolk Southern
Boonton Rail Line	Hudson County	Norfolk Southern

## Geographic Walkthrough

The following narrative provides an overview of the proposed route from the southwestern project limit in South Bound Brook to the northeastern project limit in Jersey City. References to segment names as shown on Aerial Plan Sheets and listed in the Proposed Project Development Status spreadsheet are shown in ***bold italic type***, along with major construction projects and crossing locations previously cited.

### Somerset County total length ~5 miles, Aerial Plan Sheets 1-2

#### ***South Bound Brook*** length ~1 miles, Aerial Plan Sheet 1

The ECG follows the existing Delaware and Raritan Canal Towpath. There is one roadway crossing at Main Street. ECG signing, a crosswalk treatment and trail surface stabilization are the recommendations for the South Bound Brook segment.

#### ***Franklin*** length ~4 miles, Aerial Plan Sheets 1-2

The ECG follows the existing Delaware and Raritan Canal Towpath. There are no roadway crossings or major construction efforts required along this segment. ECG signing and trail surface stabilization are the recommendations for the Franklin segment.

### Middlesex County: total length ~19 miles, Aerial Plan Sheets 2-8

#### ***New Brunswick***: length ~1/2 mile, Aerial Plan Sheet 2

The ECG follows the existing Delaware and Raritan Canal Towpath for a short segment within New Brunswick. There are no roadway crossings or major construction efforts required along this segment. ECG signing and trail surface stabilization are the recommendations for this portion of the New Brunswick alignment.

A new bridge is recommended to carry the ECG over the Raritan River between New Brunswick and Piscataway Township. This would provide an alternative to the existing 4-foot wide sidewalk on one side of the existing Landing Lane Bridge. The total span would be approximately 500 feet.

#### ***Piscataway Township***: length ~1 mile, Aerial Plan Sheets 2-3

The ECG is proposed to follow the existing Johnson Park pathways in Piscataway. To accomplish this, there will need to be new path segments to link the existing path with adjacent ECG segments. This would require approximately 1,000 feet of new pathway adjacent to Landing Lane.

**Highland Park:** length ~3 miles, Aerial Plan Sheet 3

The ECG is proposed to traverse Highland Park along a series of new paths connecting two regional parks, Johnson Park and Donaldson Park.

A new connection from the Johnson Park existing trail will be required within park property to connect to an adjacent new path along the Raritan River (*River Front Path 1*). This new path is a major construction effort, as it will need to be located along steep bank sections, very close to the river's edge. Construction of the proposed path will require large retaining walls to bench the ECG into the steep Raritan River bank slope. The proposed path will cross under the existing *Route 27 bridge* over the Raritan River and extend to Donaldson Park.

A new path is proposed within Donaldson Park to complement the existing park roadway system. The proposed new path would be approximately 9,000 feet long. New construction could be minimized by utilizing the existing park roadway system for the central portion of the alignment through Donaldson Park. This would still require two new path segments to connect the park roads with proposed new riverfront paths adjacent to Donaldson Park. These connecting path segments would each need to be approximately 1,000 feet long.

A second new path along the Raritan River (*River Front Path 2*) is proposed to the north/east of Donaldson Park. This will also follow the banks of the Raritan River, and has a more gentle terrain than the western portion of Highland Park.

**Edison (southwestern section):** length ~8 miles, Aerial Plan Sheets 3-5

The proposed *River Front Path 2* continues in Edison along the banks of the Raritan River. Specific alignment issues will need to be worked out around the existing apartment complex just west of Route 1. The ECG can either be cantilevered along the banks of the Raritan River, or routed to the north around the southernmost grouping of apartment buildings. The proposed ECG will then cross under Route 1, taking advantage of the high deck bridge construction with ample vertical clearance.

The marina just east of Route 1 presents an obstacle to constructing the ECG along the riverfront in that immediate area. The ECG is recommended to follow the local roads Thompson Place and Applegate Place in this vicinity (the first on-road segment). East of Silver Lake Avenue the ECG is proposed to follow the unused Conrail railroad line to Thomas Edison County Park, where this path will intersect with the planned Raritan River Seaport Trail. The railroad alignment section will include a grade-separated under-crossing of the *New Jersey Turnpike* and will minimize roadway conflicts with the high volume of truck traffic through Raritan Center. This segment includes an at-grade crossing at Mill Road, which carries heavy truck traffic.

The *Raritan River Seaport Trail* will follow the Raritan River bank, and will require several small bridges over waterways. This planned shared use path will stretch between the Thomas Edison County Park, along the Raritan riverfront, and terminate along Meadow Road near the Conrail line at the eastern portion of the Raritan Center.

**Woodbridge (southern section):** length ~4 miles, Aerial Plan Sheets S-6

The *Raritan River Seaport Trail* will follow the Raritan River bank, and will require several small bridges. The proposed ECG through the Raritan Center will follow an additional segment



of the Conrail rail line between Meadow Road and the Middlesex Greenway. This includes a grade-separated crossing of **Route 440**. The **Middlesex Greenway** will be utilized as the ECG route.

**Edison (northeastern section):** length ~5 miles, Aerial Plan Sheets 6-7

The **Middlesex Greenway** will be utilized for the ECG. **The Route 1 utility corridor trail** will also be utilized as the ECG. This will require coordination with both NJDOT on the widening of Route 1 and with PSE&G on right-of-way issues. The Roosevelt Park segment will require minor extensions of the extensive shared use path network to provide a continuous connection to the abutting ECG segments.

The Menlo Park connection is an additional on-road segment of the proposed ECG. It will utilize a new under-crossing, currently under construction, of the Conrail railroad tracks. The Middlesex Essex Turnpike segment is also proposed to be on-road, and will require bike lane striping and sidewalk construction.

**Woodbridge (northern section):** length ~1.5 miles, Aerial Plan Sheets 7-8

The Middlesex Essex Turnpike segment is proposed to be on-road, and will require bike lane striping and sidewalk construction.

The Merrill Park connection will require the construction of approximately two miles of new shared use path to supplement the existing park roadway network. The Middlesex Avenue segment is proposed to be on-road along this segment. A new shared use path is proposed for the Long Hill Park Segment. This will be located along relatively level ground, parallel to the west branch of the Rahway River.

**Union County:** total length ~17 miles, Aerial Plan Sheets 8-13

**Rahway:** length ~5 miles, Aerial Plan Sheets 8-9

The ECG is proposed along New Brunswick Avenue and along a series of central business district roadways to accommodate bicycle travel along one-way roads. The Rahway River Parkway provides the opportunity for the ECG to be routed off-road along existing path segments.

**Clark:** length ~4 miles, Aerial Plan Sheet 9

The Rahway River Parkway provides the opportunity for the ECG to be routed off-road along both existing path segments and potential off-road path areas.

**Winfield:** length ~1/2 mile, Aerial Plan Sheet 9

The Rahway River Parkway provides the opportunity for the ECG to be routed off-road along potential off-road path areas. A short on-road segment is proposed for the **Garden State Parkway crossing** along Raritan Road.

**Cranford:** length ~4 miles, Aerial Plan Sheets 9-11

The Rahway River Parkway provides the opportunity for the ECG to be routed off-road, following existing path segments and areas with the potential for an off-road facility. This ECG segment will include a **Conrail railway crossing** along the Rahway River bank. The NJ Transit



rail line can be crossed by using the existing Cranford Station passenger tunnel. There are recently constructed shared use path segments south of South Avenue and north of North Avenue behind the Cranford Municipal Building. A combination of on-road and off-road segments will carry the ECG north to Nomahegan Park, where the ECG will make use of existing park paths.

**Springfield:** length ~1.2 mile, Aerial Plan Sheet 10

The ECG is proposed to follow the currently planned *Lenape Park Trail* shared use path segment. This will require a minor bridge over the Rahway River, and possibly the Elizabeth River, and will cross wetlands.

**Union:** length ~3 miles, Aerial Plan Sheets 11-12

There is off-road potential for the ECG along the Elizabeth River Parkway. One major new connection is proposed between *Globe Road* and Selfmaster Parkway, which will link two on-road segments immediately west of the Garden State Parkway. This will require the construction of approximately 200 feet of new shared use path along a moderately steep grade.

**Kenilworth:** length ~1 mile, Aerial Plan Sheet 11

The Elizabeth River Parkway corridor provides the opportunity for the ECG to be routed off-road along both existing path segments and areas with the potential for off-road facilities. The County intends to develop a paved path through Black Brook Park in 2005.

**Hillside:** length ~2 miles, Aerial Plan Sheets 12-13

The ECG is proposed to follow the Elizabeth River Parkway corridor to the *NJ Transit* rail line where there is a major crossing under the rail line along the banks of the Elizabeth River. A new shared use path is proposed along an informal earthen path in Elizabeth River Park, fronting on Conant Street. The remainder of the Hillside segment is proposed to be along existing sidewalks and shared use on-road segments.

**Elizabeth:** length ~1/2 mile, Aerial Plan Sheet 13

There are no major construction efforts proposed in Elizabeth. The ECG is proposed to follow existing sidewalks and shared use on-road segments, and may require intersection signing and striping.

**Essex County:** total length ~6 miles, Aerial Plan Sheets 13-14

**Newark:** length ~6 miles, Aerial Plan Sheets 13-14

A new shared use path is proposed that would augment the use of existing park roads in Weequahic Park. The ECG will "piggyback" on the Newark Greenway network through the city. This will include both on-road and off-road facilities. The route will include a major grade-separated crossing over *Route 21* near the Newark Performing Arts Center.

**Hudson County:** length ~12 miles, Aerial Plan Sheets 14-16

**Harrison:** length ~2 miles, Aerial Plan Sheet 14-15

The ECG is proposed to follow existing sidewalks and make use of roadways through the central business district. Bike lanes would be preferable, however, due to the existing traffic



volumes and dense urban development, impacts of constructing bike lanes may not be locally acceptable for the near term.

The ECG is proposed to follow the Newark Industrial Track. At this time Norfolk Southern is filing an application to suspend service along this rail corridor, and therefore a rail-to-trail conversion would likely be acceptable.

#### **East Newark: length ~0.1 miles, Aerial Plan Sheet 15**

A short portion of Frank E. Rodgers Boulevard is recommended to have sidewalk and shared on-road use for the ECG. A transition between Frank E. Rodgers Boulevard and the Newark Industrial Track is proposed on each side of the roadway.

#### **Kearny: length ~3 miles, Aerial Plan Sheets 15-16**

The ECG is proposed to follow the Newark Industrial Track and the Boonton Rail line. At this time Norfolk Southern is filing an application to suspend service along these rail corridors, and therefore a rail to trail conversion would be possible. These rail corridors are located on narrow fill sections through the Meadowlands.

*Crossing the Hackensack River* is a major constraint for the ECG. The existing rail bridge is a turnstile bridge that currently remains in the open position, to allow river navigation. A new bridge is proposed (long-term development) at a raised elevation, allowing ECG patrons to cross and not interrupt river navigation. Because of the difficulties associated with the proposed alignment, other alternatives were investigated and proposed during the study. An alternative routing around this constraint would follow Route 7/Belleville Turnpike. Constructing this alternative would require a ramp between the rail corridor and the Route 7 Bridge over the rail corridor and additional routing to avoid a high conflict interchange west of the Wittpenn Bridge. This would occur within the Meadowlands area, and environmental issues would need to be addressed.

#### **Secaucus: length ~1 mile, Aerial Plan Sheet 16**

The ECG is proposed to follow the Boonton Rail line to cross the eastern spur of the New Jersey Turnpike and the Northeast Corridor rail line. The existing crossings have ample vertical clearance to accommodate the ECG. A rail-to-trail conversion is proposed for the Boonton rail line. Near term options exist for this area, and for crossing the Hackensack River as discussed in Chapter 2.

#### **Jersey City: length ~6 miles, Aerial Plan Sheet 16**

The ECG is proposed to follow either the Boonton Rail line or the maintenance road adjacent to the rail line across PSE&G property east of the Hackensack River. Using either of these alignments, the ECG will pass near multiple active rail lines and will need a major new bridge to cross five parallel tracks (NYS&W) to access the *Bergen Arches* corridor. Making use of the Bergen Arches would allow the ECG to cross Tonnele Avenue, JFK Boulevard and other roadways below-grade, following along the depressed rail alignment. The ECG would return to the surrounding natural grade at the Jones Park area crossing of the NJ Turnpike/I-78. Because of complex issues associated with use of the Bergen Arches, several alternatives are discussed in the following section.



South of Jones Park a short section of on-road alignment will be required along Division Street to the intersection of Newark Avenue and the *Pennsylvania Railroad Harsimus Stem Embankment* along 6<sup>th</sup> Street. From this point the ECG is proposed to follow the historic 6<sup>th</sup> Street Harsimus Embankment corridor between Newark Avenue and Washington Boulevard and the Hudson River Waterfront Walkway.

The ECG is proposed to utilize the Hudson River Waterfront Walkway (HRWW) between 6<sup>th</sup> Street and Liberty State Park. ECG Patrons would also have the option of traveling along the HRWW to access any of numerous ferry crossing options to New York, including the historic Hoboken station, less than one mile to the north.

#### *Alternative Routing*

There are several locations where there are alternatives to the routing through Jersey City described above. The first location is between the PSE&G property and the Bergen Arches corridor. In place of following the rail alignment, the ECG could be located along an on-road segment of West Side Avenue and St. Paul's Avenue. This would be preferable in the short term and would likely be paired with an at-street-grade option along the Bergen Arches. This could provide easier access for local residents and maintain more convenient continuous access/egress to the ECG, as compared to the depressed rail alignment. This at-street-grade alternative could also bypass one major active rail crossing by turning south on Palisade Avenue, and connecting to Newark Avenue. This would still link to the 6<sup>th</sup> Street Harsimus Embankment corridor at approximately the same location as the primary alternative.

A second location for alternate routing through Jersey City involves the options of crossing the Hackensack River (either) along the existing or along the soon to be reconstructed and widened Wittpenn Bridge. From this bridge there are two major options. The primary option is to link from the Wittpenn Bridge to the Bergen Arches corridor via an on-road segment using Charlotte Avenue and St. Paul's Avenue. The secondary option is to go through a completely different alignment through Jersey City by traveling south along the Hackensack River to Lincoln Park. From Lincoln Park the ECG would be located on-road along sections of West Side Avenue, Montgomery Avenue and then follow a short segment under the NJ Turnpike/I-78 (elevated section ~60 feet above grade) to Jones Park.

An additional option for linking the ECG between Lincoln Park and Liberty State Park would be to utilize the direct link of Communipaw Avenue as an on-road section. Portions of this corridor are under consideration for redevelopment, which would make this a more attractive ECG routing option once the development was completed.





# EAST COAST GREENWAY

## NORTHERN NEW JERSEY ROUTE LOCATION STUDY

### AERIAL PHOTOGRAPHY ROUTE LAYOUT

APRIL, 2004  
PREPARED BY:



SOMERSET COUNTY

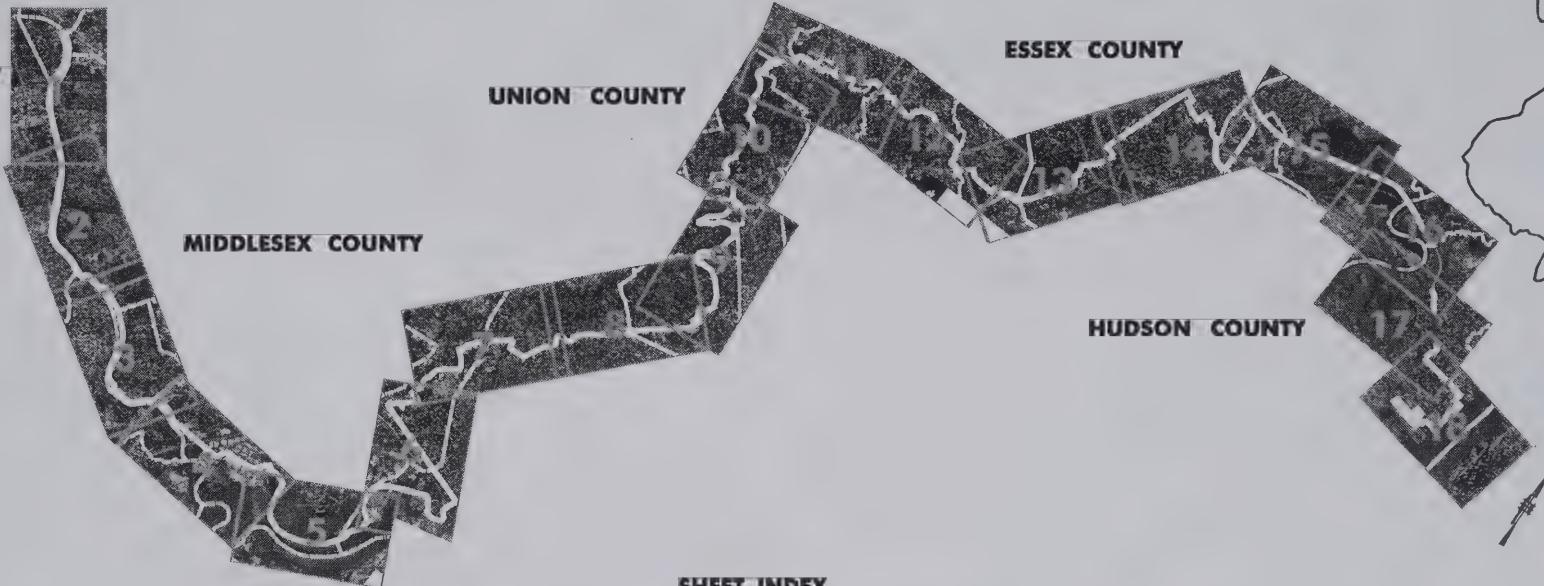
UNION COUNTY

MIDDLESEX COUNTY

ESSEX COUNTY

HUDSON COUNTY

KEY MAP  
N.T.S.



#### SHEET INDEX

Somerset County	Sheet #	Union County	Sheet #	Essex County	Sheet #
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**LEGEND:**

- ECG ALIGNMENT
- INTERIM ON-ROAD ALIGNMENT
- TOW PATH SEGMENT NAME
- MUNICIPAL BOUNDARY

NEW JERSEY DEPARTMENT OF TRANSPORTATION

EAST COAST GREENWAY  
NORTHERN NEW JERSEY  
ROUTE LOCATION STUDY  
AERIAL ROUTE MAPS  
APRIL, 2004



PISCATAWAY TOWNSHIP  
MIDDLESEX COUNTY

JOHNSON PARK

ROUTE 18

RARITAN RIVER

BORO OF HIGHLAND PARK  
MIDDLESEX COUNTY

DONALDSON PARK

RAIL

ROUTE 18

EDISON  
TOWNSHIP  
MIDDLESEX  
COUNTY

RIVERFRONT  
PATH 2

NEW JERSEY DEPARTMENT OF TRANSPORTATION

LEGEND:

ECG ALIGNMENT

INTERIM ON-ROAD ALIGNMENT

TOW PATH SEGMENT NAME

MUNICIPAL BOUNDARY

DEP 1:2000 2000

SCALE IN FEET

EAST COAST GREENWAY  
NORTHERN NEW JERSEY  
ROUTE LOCATION STUDY  
AERIAL ROUTE MAPS  
APRIL, 2004

LANDFILL

EDISION TOWNSHIP  
MIDDLESEX COUNTY

RIVERFRONT PATH

RARITAN RIVER

**ON-ROAD SEGMENTS**

- RIVERFRONT PATH 2  
- THOMPSON PLACE  
- APPLEGATE PLACE  
- BOORUM STREET

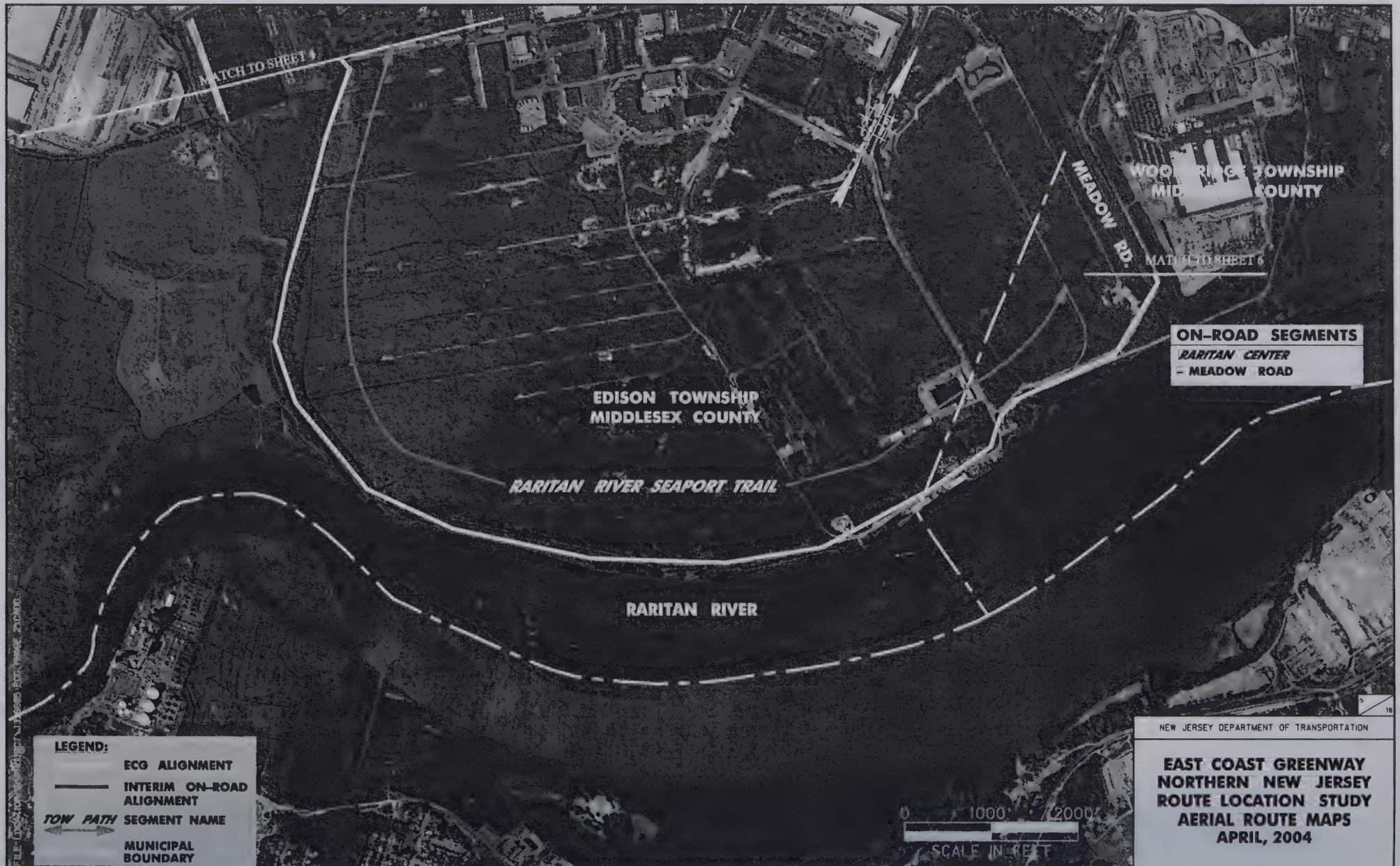
**LEGEND:**

- ECG ALIGNMENT
- INTERIM ON-ROAD ALIGNMENT
- TOW PATH SEGMENT NAME
- MUNICIPAL BOUNDARY

0 1000' 2000'  
SCALE IN FEET

NEW JERSEY DEPARTMENT OF TRANSPORTATION

EAST COAST GREENWAY  
NORTHERN NEW JERSEY  
ROUTE LOCATION STUDY  
AERIAL ROUTE MAPS  
APRIL, 2004





**ON-ROAD SEGMENTS**  
**MENLO PARK CONNECTION**  
- OAKWOOD AVENUE  
- EVERGREEN ROAD

EDISON TWP.  
MIDDLESEX COUNTY

MENLO PARK  
STATION

WOODBRIDGE TWP.  
MIDDLESEX COUNTY

Roosevelt  
Park

MENLO PARK  
CONNECTION

OAKWOOD AVE.

FIFTH ST

ROUTE TO SHEETS

EVERGREEN RD.

MIDDLESEX  
GREENWAY

ROUTE 27

ROUTE 27

ROUTE 27

**LEGEND:**

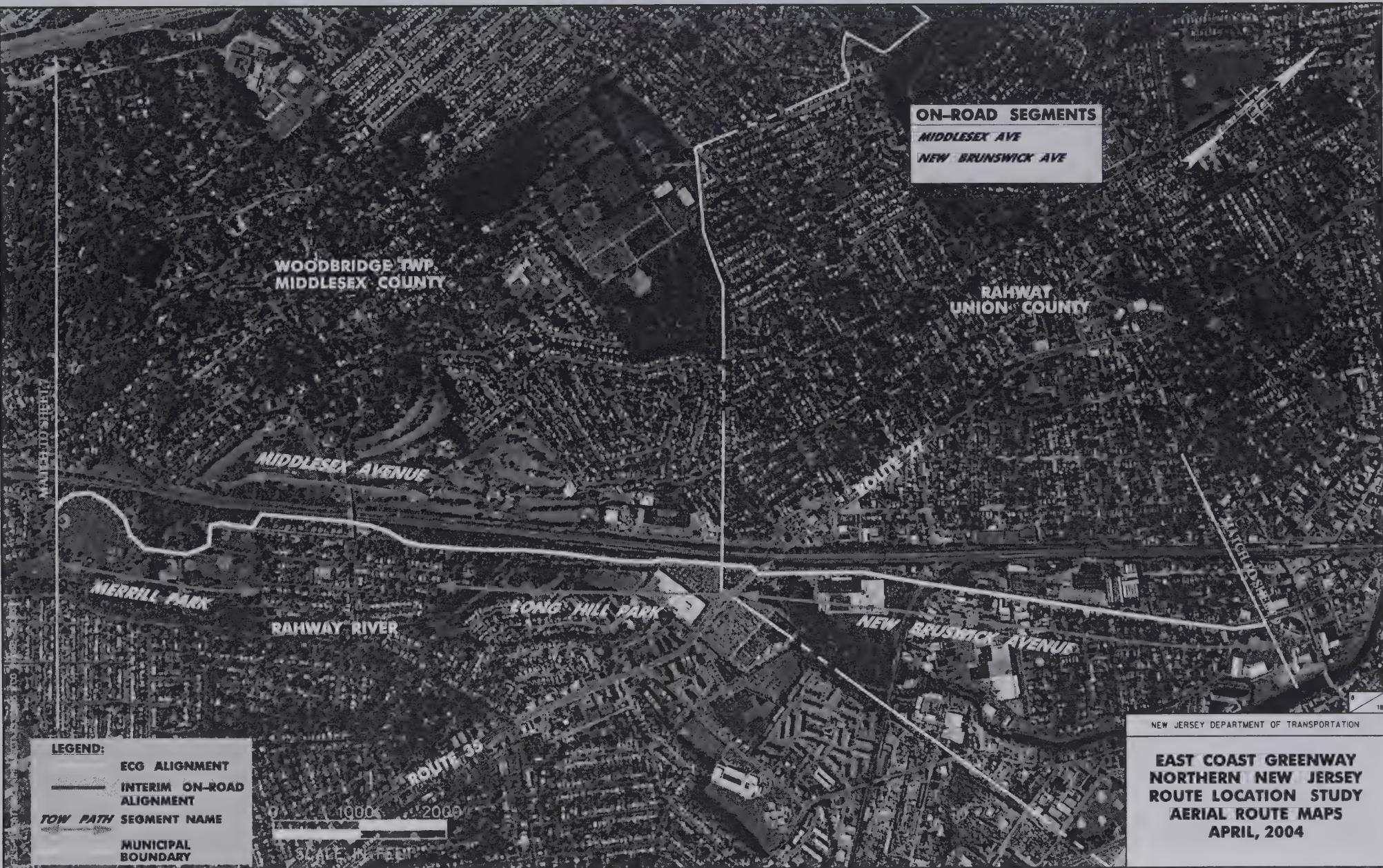
- ECG ALIGNMENT
- INTERIM ON-ROAD ALIGNMENT
- TOW PATH SEGMENT NAME
- MUNICIPAL BOUNDARY

1000 2000

SCALE IN FEET

NEW JERSEY DEPARTMENT OF TRANSPORTATION

EAST COAST GREENWAY  
NORTHERN NEW JERSEY  
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APRIL, 2004



CRANFORD  
UNION COUNTY

MATCH TO SHEET 10

**ON-ROAD SEGMENTS**

- RAHWAY CBD ROADWAYS**
- MAIN STREET
  - W. MAIN STREET
  - ELIZABETH AVENUE
  - IRVING STREET
  - E. MILTON AVENUE

RAHWAY  
UNION COUNTY

CLARK  
UNION COUNTY

GARDEN STATE PARKWAY

WINFIELD  
UNION COUNTY

RAHWAY CBD  
ROADWAYS

RAHWAY RIVER  
VALLEY ROAD

RAHWAY RIVER PARKWAY

LINDEN  
UNION COUNTY

**ON-ROAD SEGMENTS**

- RAHWAY RIVER PARKWAY**
- PARKWAY DRIVE
  - RARITAN ROAD  
(OVER GSP)

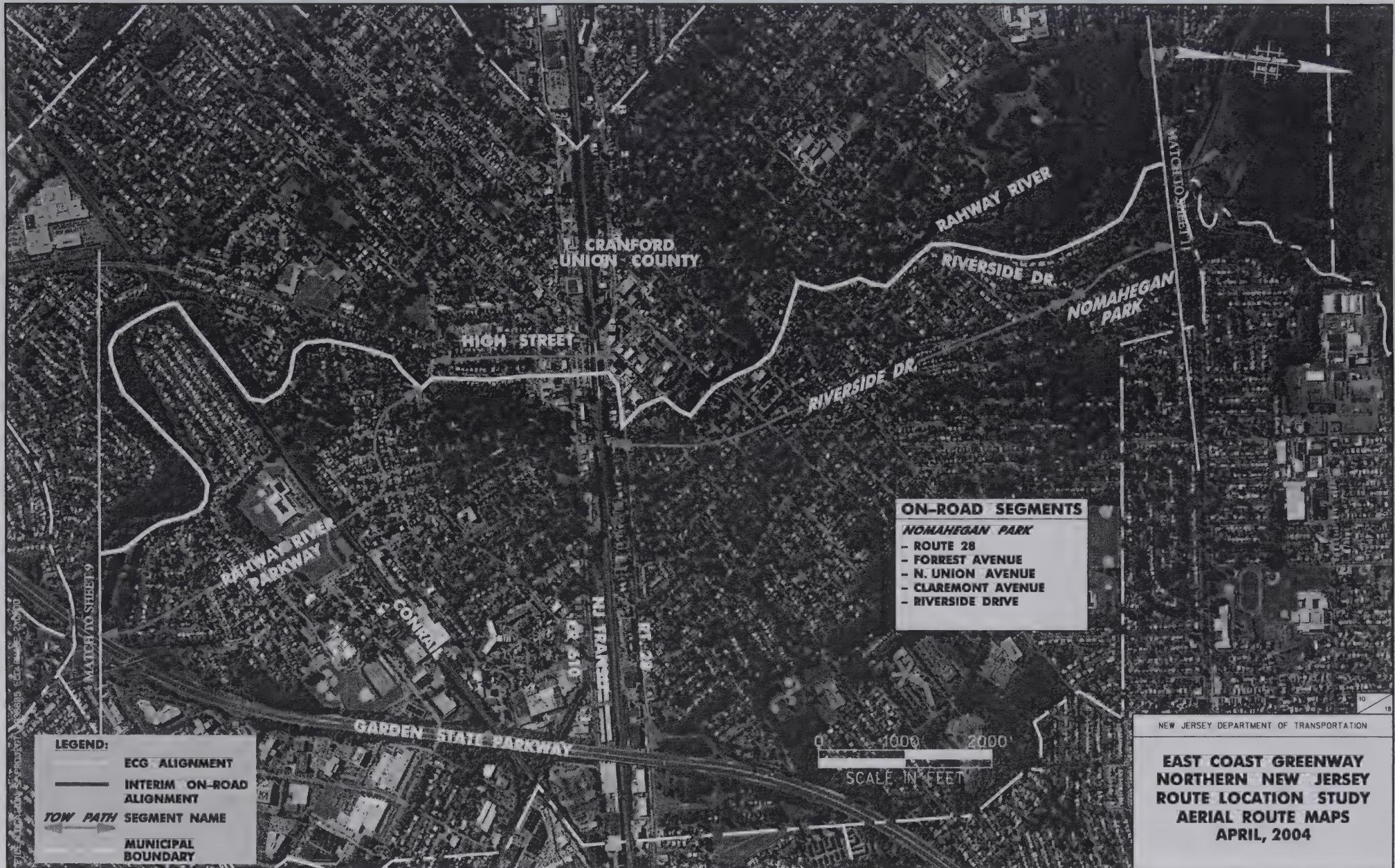
**LEGEND:**

- ECG ALIGNMENT
- INTERIM ON-ROAD ALIGNMENT
- TOW PATH SEGMENT NAME
- MUNICIPAL BOUNDARY

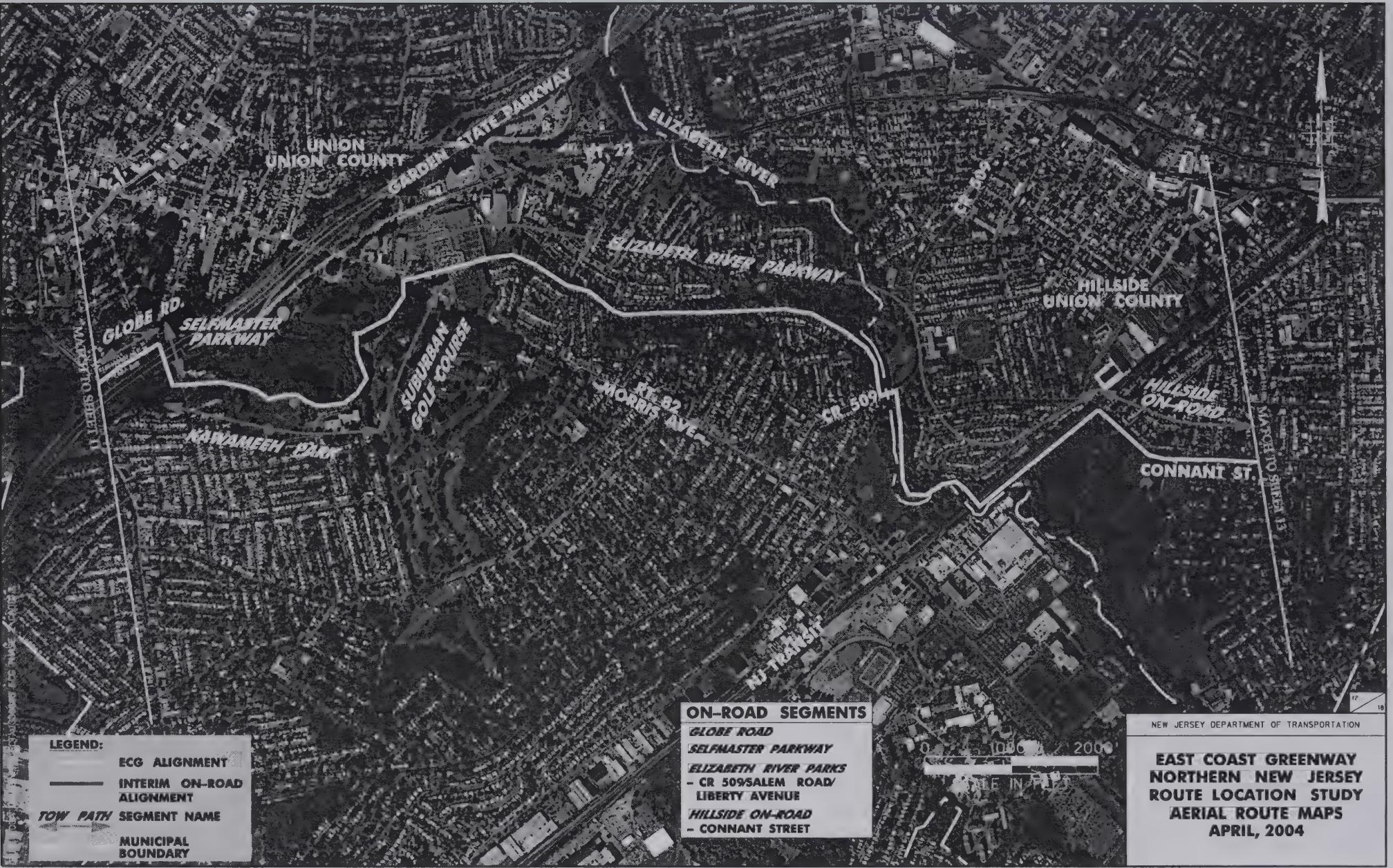
NEW JERSEY DEPARTMENT OF TRANSPORTATION

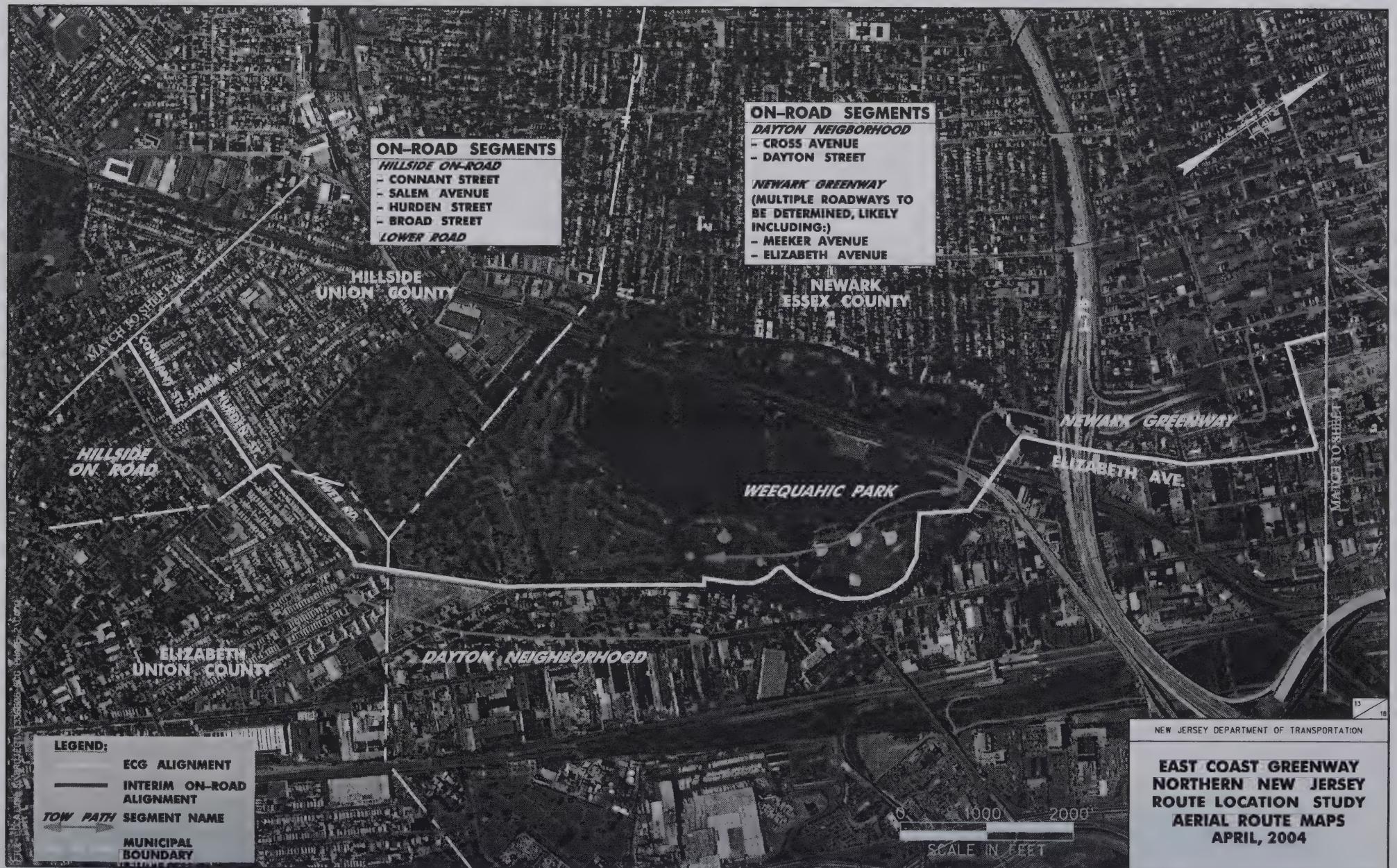
EAST COAST GREENWAY  
NORTHERN NEW JERSEY  
ROUTE LOCATION STUDY  
AERIAL ROUTE MAPS  
APRIL, 2004

1900 2000  
SCALE IN FEET











**LEGEND:**

- ECG ALIGNMENT**
- INTERIM ON-ROAD ALIGNMENT**
- TOW PATH SEGMENT NAME**
- MUNICIPAL BOUNDARY**

**ON-ROAD SEGMENTS**

- NEWARK GREENWAY**
- ELIZABETH AVENUE
  - CLINTON AVENUE
  - LINCOLN PLACE
  - BROAD STREET
  - MARKET STREET
  - FERRY STREET
  - JACKSON STREET
  - FRANK E. RODGERS BLVD.

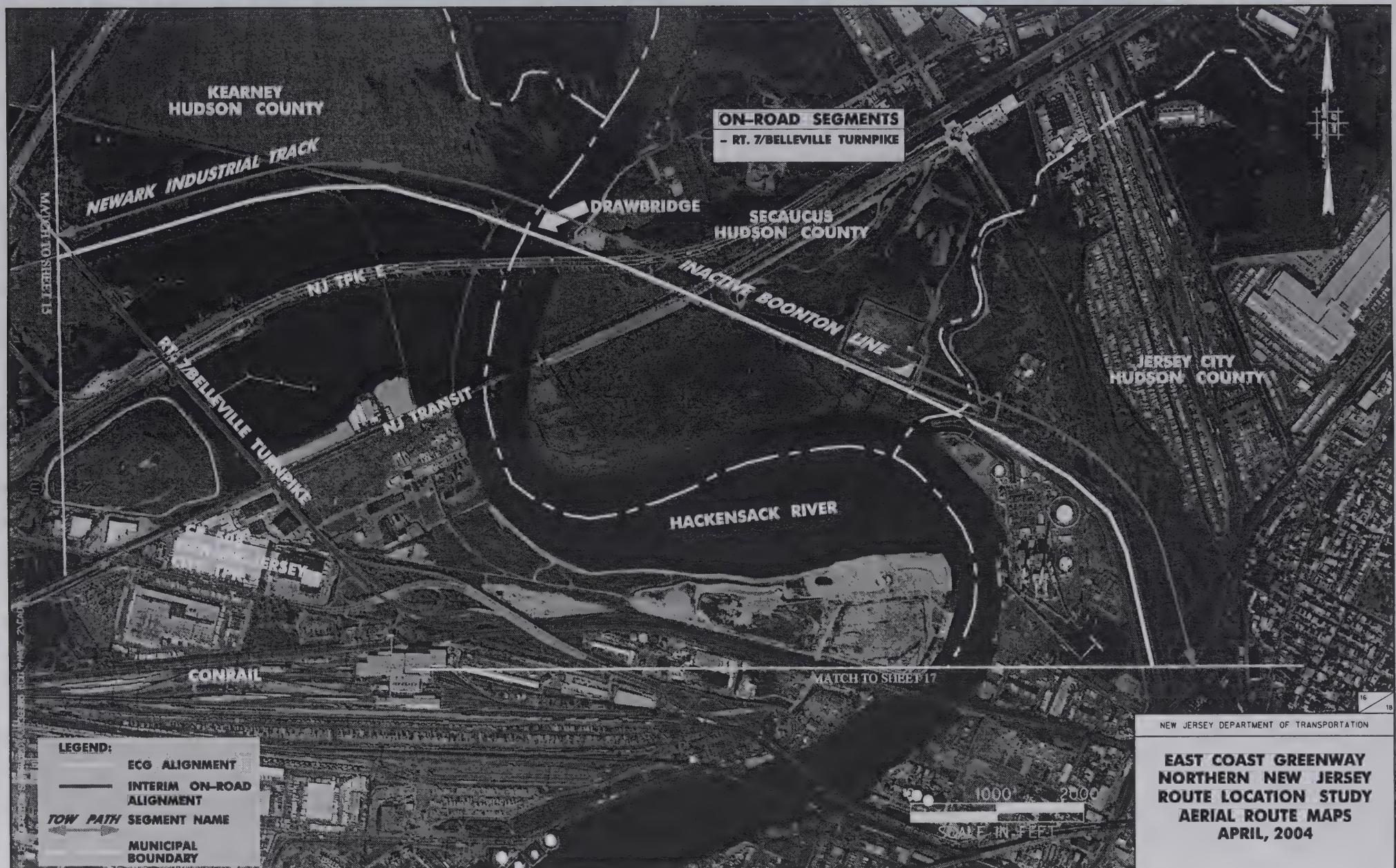
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NEW JERSEY DEPARTMENT OF TRANSPORTATION

**EAST COAST GREENWAY  
NORTHERN NEW JERSEY  
ROUTE LOCATION STUDY  
AERIAL ROUTE MAPS  
APRIL, 2004**











# East Coast Greenway Proposed Project Development Sta

	Notes:	Municipal jurisdiction is assumed for any area that is not "Existing" projects are those currently on lands open for "Planned" projects are those that are already in some go "Proposed" projects are those that are "missing links" in			
Aerial Sheet	County	Municipality	Project Name	Crossings roads, Rails, Bridges	Jurisdiction of crossing
<b>Somerset</b>					
1	South Bound Brook				
1			D&R Canal Tow Path		County
	<i>Municipal Subtotal</i>				
2	Franklin				
1,2			D&R Canal Tow Path		NJDOT
	<i>Municipal Subtotal</i>				
	<i>County Subtotal</i>				
<b>Middlesex</b>					
3	New Brunswick				
2			D&R Canal Tow Path		
2			Landing Lane Bridge		
	<i>Municipal Subtotal</i>				
4	Piscataway				
2,3			Johnson Park		NJDOT
	<i>Municipal Subtotal</i>				
5	Highland Park				
3			Johnson Park		
3			Riverfront Path 1		NJDOT
	<i>Municipal Subtotal</i>			ade includes 1/4 mi on Rt 27	NJDOT
3			Donaldson Park		
3			Riverfront Path 2		
	<i>Municipal Subtotal</i>				
6	Edison				
3, 4			Riverfront Path 2		NJDOT
				used rail corridor	NJ Tpk
4			Thomas Edison Co. Park		
5			Raritan River Seaport Trail		NJDEP
6			Raritan Center		Conrail
6			(GE & Edison)		NJDOT
6			Middlesex Greenway		NJ Tpk
				used rail corridor	Mid Co.
				der 2-3	Munic
6			Route 1 Utility Corridor	ffic Signal	NJDOT
6, 7			Roosevelt Park		
7			Menlo Park Connection		Conrail / Munic
	<i>Municipal Subtotal</i>				



# East Coast Greenway

## Proposed Project Development Status By County

Notes:											
Municipal jurisdiction is assumed for any area that is not clearly within State or County ownership, and is likely to include private property.											
"Existing" projects are those currently on lands open for public use, and may need additional improvements for East Coast Greenway routing.											
"Planned" projects are those that are already in some governmental planning pipeline, whether funded or not.											
"Proposed" projects are those that are "missing links" in the "Existing" or "Planned" ECG project network and are required for "through" connectivity.											
Aerial Sheet	County	Municipality	Project Name	Existing	Currently Planned	ECG Proposed	Sub Totals	Recommendations	Jurisdiction along Link	Crossings Roads, Rails, Bridges	Jurisdiction of crossing
<b>Somerset</b>											
1	South Bound Brook	D&R Canal Tow Path		1.0				1.0	At-Grade crossing treatment -CR527	NJDEP CR 527	County
	<i>Municipal Subtotal</i>							1.0			
2	Franklin	D&R Canal Tow Path		4.0				4.0	Signing	I-287 - under	NJDOT
	<i>Municipal Subtotal</i>							4.0			
	<i>County Subtotal</i>			5.0	0.0	0.0	0.0	0.0	0.0	5.0	
<b>Middlesex</b>											
2	3 New Brunswick	D&R Canal Tow Path		0.2				0.2	Signing	NJDEP	
2		Landing Lane Bridge		0.1			0.1	0.2	Inadequate XC - Parallel Off-Road Bridge	County Raritan River	
	<i>Municipal Subtotal</i>							0.4			
2,3	4 Piscataway	Johnson Park		1.0				1.0	Through Shared Use Path under Rt 18	County Rt 18 - under	NJDOT
	<i>Municipal Subtotal</i>							1.0			
3	5 Highland Park	Johnson Park		0.5				0.5	Signing		
3		Riverfront Path 1			1.2			1.2	Construct Shared Use Path	Munic Rt 27 - under	NJDOT
	<i>Municipal Subtotal</i>							0.7	Intersection & Striping improvements	Munic/ NJDOT Alternate - Rt 27 - at-grade includes 1/4 mi on Rt 27	NJDOT
3	3	Donaldson Park		0.7				0.4	Through Shared Use Path required	County	
	<i>Municipal Subtotal</i>							0.4	Construct Shared Use Path	Munic	
3,4	6 Edison	Riverfront Path 2				1.5	0.5	2.0	Construct 1/2 mi shared use path & local rd improvs	Munic & Conrail Rt 1 -under tall bridge	NJDOT
	<i>Municipal Subtotal</i>							2.0	2 mi rail to trail shared use path	Conrail NJ Tpk - under along unused rail corridor	NJ Tpk
	<i>Municipal Subtotal</i>							0.0	Local roadway improvements	Munic	
4	5	Thomas Edison Co. Park						0.0	Construct through shared use path	County Local Tributaries	NJDEP
6	6	Raritan River Seaport Trail		4.0				4.0	Local roadway improvements	Munic (Woodbridge) Conrail	Conrail
	<i>Municipal Subtotal</i>							2.0	Construct bike lanes & sidewalk	NJDOT Rt 440 - over (Woodbridge & Edison)	NJDOT
6		Raritan Center						2.0	Narrow XC on Post Road bridge	County CR 514 - under	NJ Tpk
	<i>Municipal Subtotal</i>							2.0	Pave Shared use Path	NJ Tpk - under along unused rail corridor	Mid Co.
	<i>Municipal Subtotal</i>							2.0	Pave Shared use Path	Local Road bridges - under 2-3	Munic
6,7	6	Middlesex Greenway		2.0				0.8	Pave Shared use Path	Munic NJDOT/PSE&G Rt 1 - At-grade with Traffic Signal	NJDOT
	<i>Municipal Subtotal</i>							0.8	Construct Shared Use Path	Mid Co.	
	<i>Municipal Subtotal</i>							1.0	New connection to Rt 1 through park	Munic Conrail and Munic Roads	Conrail / Munic
	<i>Municipal Subtotal</i>							1.2	Construct bike lanes & sidewalk		
	<i>Municipal Subtotal</i>							13.0			



# East Coast Greenway Proposed Project Development Status

			<b>Notes:</b> Municipal jurisdiction is assumed for any area that is not "Existing" projects are those currently on lands open for "Planned" projects are those that are already in some stage "Proposed" projects are those that are "missing links" in the greenway network.	
<b>Aerial Sheet</b>	<b>County</b>	<b>Municipality</b>	<b>Project Name</b>	<b>Crossings</b> Roads, Rails, Bridges
7	Woodbridge		Raritan Seaport Trail	Jurisdiction of crossing
6		Raritan Center	(e & Edison)	NJDOT
		[break in alignment thru Edison]		
7		Middlesex Essex Turnpike		GSP
7, 8		Merrill Park		Munic
8		Middlesex Avenue		
8		Long Hill Park		Munic
		<b>Municipal Subtotal</b>		
		<b>County Subtotal</b>		
<b>Union</b>				
8	Rahway	New Brunswick Avenue		NJDOT
8, 9		Rahway CBD Roadways		
9		Rahway River Parkway		NJDOT
		<b>Municipal Subtotal</b>		
9	Clark	Rahway River Parkway		Munic
		(istance)		GSP
		(t sight distance)		Local
		<b>Municipal Subtotal</b>		
9	Winfield	Rahway River Parkway		
		<b>Municipal Subtotal</b>		
11	Cranford	Rahway River Parkway		Conrial
9, 10		High Street		
10		Riverside Drive		Union Co.
				NJ Transit
				NJDOT
10, 11		Nomahegan Park/Lenape Park		Union Co.
		<b>Municipal Subtotal</b>		
12	Springfield	Lenape Park	Zabeth Rivers	Union Co/NJDEP
		<b>Municipal Subtotal</b>		



# East Coast Greenway

## Proposed Project Development Status By County

Notes:													
Municipal jurisdiction is assumed for any area that is not clearly within State or County ownership, and is likely to include private property.													
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"Planned" projects are those that are already in some governmental planning pipeline, whether funded or not.													
"Proposed" projects are those that are "missing links" in the "Existing" or "Planned" ECG project network and are required for "through" connectivity.													
Aerial Sheet	County	Municipality	Project Name	Existing	Currently Planned	ECG Proposed	Sub Totals	Recommendations	Jurisdiction along Link	Crossings Roads, Rails, Bridges	Jurisdiction of crossing		
				Off Road (miles)	On Road (miles)	Off Road (miles)	On Road (miles)	Off Road (miles)	On Road (miles)				
7	Woodbridge	Raritan Seaport Trail					1.0	1.0 Construct Shared Use Path					
6		Raritan Center					3.0	3.0 Construct bike lanes & sidewalk	Munic (&Edison)	Rt 440 - over (Woodbridge & Edison)	NJDOT		
7		[break in alignment thru Edison]											
7, 8		Middlesex Essex Turnpike					0.5	0.5 Construct bike lanes & sidewalk	Munic	GSP - over	GSP		
8		Merrill Park	1.2					1.2 Through Park shared use path needed	County	Green Street - At-grade	Munic		
8		Middlesex Avenue					0.1	0.1 Construct bike lanes & sidewalk	Munic				
		Long Hill Park	0.8					0.8 Through Park shared use path needed	County	New Dover Rd - under	Munic		
		<b>Municipal Subtotal</b>					<b>5.6</b>						
		<b>County Subtotal</b>		<b>5.5</b>	<b>0.0</b>	<b>8.0</b>	<b>0.0</b>	<b>6.0</b>	<b>4.3</b>	<b>23.8</b>			
<b>Union</b>													
8	Rahway						1.0	1.0 Construct bike lanes & sidewalk	Munic	Rt35 - At-grade	NJDOT		
8, 9		New Brunswick Avenue					0.7	0.7 Construct bike lanes & sidewalk	Munic	NJ Transit Rail - under			
9		Rahway CBD Roadways						1.2 Construct shared use path	Union Co	Rt 27 - At-grade	NJDOT		
		Rahway River Parkway	1.2										
		<b>Municipal Subtotal</b>					<b>2.9</b>						
9	Clark						1.2	4.2 Construct shared use path	Union Co	Valley Road - at-grade	Munic		
9		Rahway River Parkway	3.0										
							1.2	At-grade crossing with warning signs	Local	GSP - over (short sight distance)	GSP		
										Stiles Av - At-grade (short sight distance)	Local		
		<b>Municipal Subtotal</b>					<b>4.2</b>						
10	Winfield						0.5	0.5 Construct Shared Use Path					
9		Rahway River Parkway	0.5										
		<b>Municipal Subtotal</b>					<b>0.5</b>						
11	Cranford						1.5	1.5 Construct shared use path & boardwalk	Union Co.	Conrail Tracks	Connial		
9, 10		Rahway River Parkway					0.4	0.6 Construct path and bike lanes & sidewalk	Munic				
10		High Street						1.0 Construct bike lanes and sidewalk	Munic	CR 610 - At-grade	Union Co.		
10		Riverside Drive					0.6		NJ Transit	NJ Transit Tracks	NJ Transit		
								Use tunnel under Cranford Station					
							0.4	Construct bike lanes and sidewalk	Munic	Rt. 28 - At-grade	NJDOT		
10, 11		Nomahegan Park/Lenape Park					0.5	0.5 Link paths and At-grade crossing at 509	Union Co.	Rt 509 - At-grade	Union Co.		
		<b>Municipal Subtotal</b>					<b>3.6</b>						
12	Springfield						0.2	0.2 Construct through Shared Use Path	Union Co.	Bridges for Rahway & Elizabeth Rivers	Union Co/NJDEP		
11		Lenape Park											
		<b>Municipal Subtotal</b>					<b>0.2</b>						



# East Coast Greenway

## Proposed Project Development Status

	Notes:	Municipal jurisdiction is assumed for any area that is not "Existing" projects are those currently on lands open for "Planned" projects are those that are already in some ge "Proposed" projects are those that are "missing links" in			
Aerial Sheet	County	Municipality	Project Name	Crossings Bridges, Rails, Ridges	Jurisdiction of crossing
11	13	Union			
			Lenape Park		Munic
			[break in alignment thru Kenilworth]		Munic
11			Fairway Drive		
11,12			Chestnut Street/Globe Road		
12			Selfmaster Parkway		GSP
12			Kawameeh Park		
12			Suburban Golf Course		
12			Elizabeth River Parkway		NJDOT
					Munic
					Munic
	<b>Municipal Subtotal</b>				
11	14	Kenilworth			
11			Black Brook Park		
11			Fairway Drive		
	<b>Municipal Subtotal</b>				
12	15	Hillside			
			Elizabeth River Parkway		Union Co.
					NJ Transit
12,13			Hillside On-Road		Munic
	<b>Municipal Subtotal</b>				
13	16	Elizabeth			
13			Lower Rd.		Munic
	<b>Municipal Subtotal</b>				
	<b>County Subtotal</b>				
	<b>Essex</b>				
13	17	Newark			
13			Dayton Neighborhood		Munic
13,14			Weequahic Park		
			Newark Greenway		NJDOT
					NJDOT
					NJDOT
			Passaic River Front Path		NJ Transit
					NJDEP/ACOE
	<b>Municipal Subtotal</b>				
	<b>County Subtotal</b>				
	<b>Hudson</b>				
14,15	18	Harrison			
			Frank E. Rodgers Blvd.		Munic
					NY/NJ PA
					NJDOT
15			West Hudson Park		Munic
	<b>Municipal Subtotal</b>				
15	19	E. Newark			
			Frank E. Rodgers Blvd.		
	<b>Municipal Subtotal</b>				



# East Coast Greenway

## Proposed Project Development Status By County

	Notes:	Municipal jurisdiction is assumed for any area that is not clearly within State or County ownership, and is likely to include private property.									
		"Existing" projects are those currently on lands open for public use, and may need additional improvements for East Coast Greenway routing.									
		"Planned" projects are those that are already in some governmental planning pipeline, whether funded or not.									
		"Proposed" projects are those that are "missing links" in the "Existing" or "Planned" ECG project network and are required for "through" connectivity.									
Aerial Sheet	County	Municipality	Project Name	Existing	Currently Planned	ECG Proposed	Sub Totals	Recommendations	Jurisdiction along Link	Crossings	Jurisdiction of crossing
				Off Road (miles)	On Road (miles)	Off Road (miles)	On Road (miles)	Off Road (miles)	On Road (miles)	Roads, Rails, Bridges	
11	13	Union				0.5			0.5	Construct through Shared Use Path	Union Co.
		Lenape Park				0.4			0.4		Greenly Av - At-grade
		[break in alignment thru Kenilworth]							Union Co.	Michigan Av - At-grade	Munic
11	11	Fairway Drive						0.2	0.2	Construct shared use path	Munic
11,12		Chestnut Street/Globe Road					0.3	0.001	0.3	Construct bike lanes and sidewalk	Union Co.
12		Selfmaster Parkway						0.1	0.001	New off-road path (steep grade along GSP)	GSP?
12		Kawameeh Park				0.3			0.1	Construct bike lanes and sidewalk	Munic
12		Suburban Golf Course		0.4					0.3	Construct shared use path	Union Co.
12		Elizabeth River Parkway							0.4	Construct through Shared Use Path	Union Co.
		Municipal Subtotal				0.8			0.8	Intersection improvement	Union Co.
11	14	Kenilworth							0.1	Daylight Elizabeth River & build path	Rt 82/ Morris Av
11		Black Brook Park				0.4			0.3	Munic/NJDEP	NJDOT
		Fairway Drive							0.8	Commercial parking lot	Munic
		Municipal Subtotal								Residential abutters	Munic
12	15	Hillside				1.0			1.0	Construct Shared Use Path	CR 509 - At-grade
12		Elizabeth River Parkway							1.0	Construct Shared Use Path	NJ Transit
12,13		Hillside On-Road						0.8	0.8	Construct bike lanes and sidewalk	Munic
		Municipal Subtotal							1.8		
13	16	Elizabeth	Lower Rd.					0.4	0.4	Construct bike lanes and sidewalk	Local roadways
		Municipal Subtotal							0.4		Munic
		County Subtotal		6.6	0.0	5.1	0.0	1.5	4.1	17.3	
		Essex									
13	17	Newark						0.7	0.7	Construct bike lanes and sidewalk	Local roadways
13		Dayton Neighborhood						0.7	0.7	Construct through Shared Use Path	Munic
13,14		Weequahic Park		0.7				4.0	4.0	Construct On and Off Road Greenway	Essex County
		Newark Greenway									
		Passaic River Front Path					0.7		0.7	Rt 22 - Under	NJDOT
		Municipal Subtotal							0.7	I-78 - under	NJDOT
		County Subtotal		0.0	0.7	4.0	0.0	0.7	0.7	Rt 21 - Over	NJDOT
									0.7	NJ Transit - under	NJ Transit
									6.1	Jackson St bridge or Bridge St bridge	Passaic River
											NJDEP/ACOE
		Hudson									
14,15	18	Harrison						1.2	1.2	On-road shared use & sidewalks	Local roadways
		Frank E. Rodgers Blvd.							1.2	PATH - under	NY/NJ PA
									1.2	Rt. 280 - under	NJDOT
15		West Hudson Park					0.6	0.6	0.6	Local roadways	Munic
		Municipal Subtotal						1.8			
15	19	E. Newark	Frank E. Rodgers Blvd.					0.1	0.1	On-road shared use & sidewalks	Munic
		Municipal Subtotal						0.1	0.1		

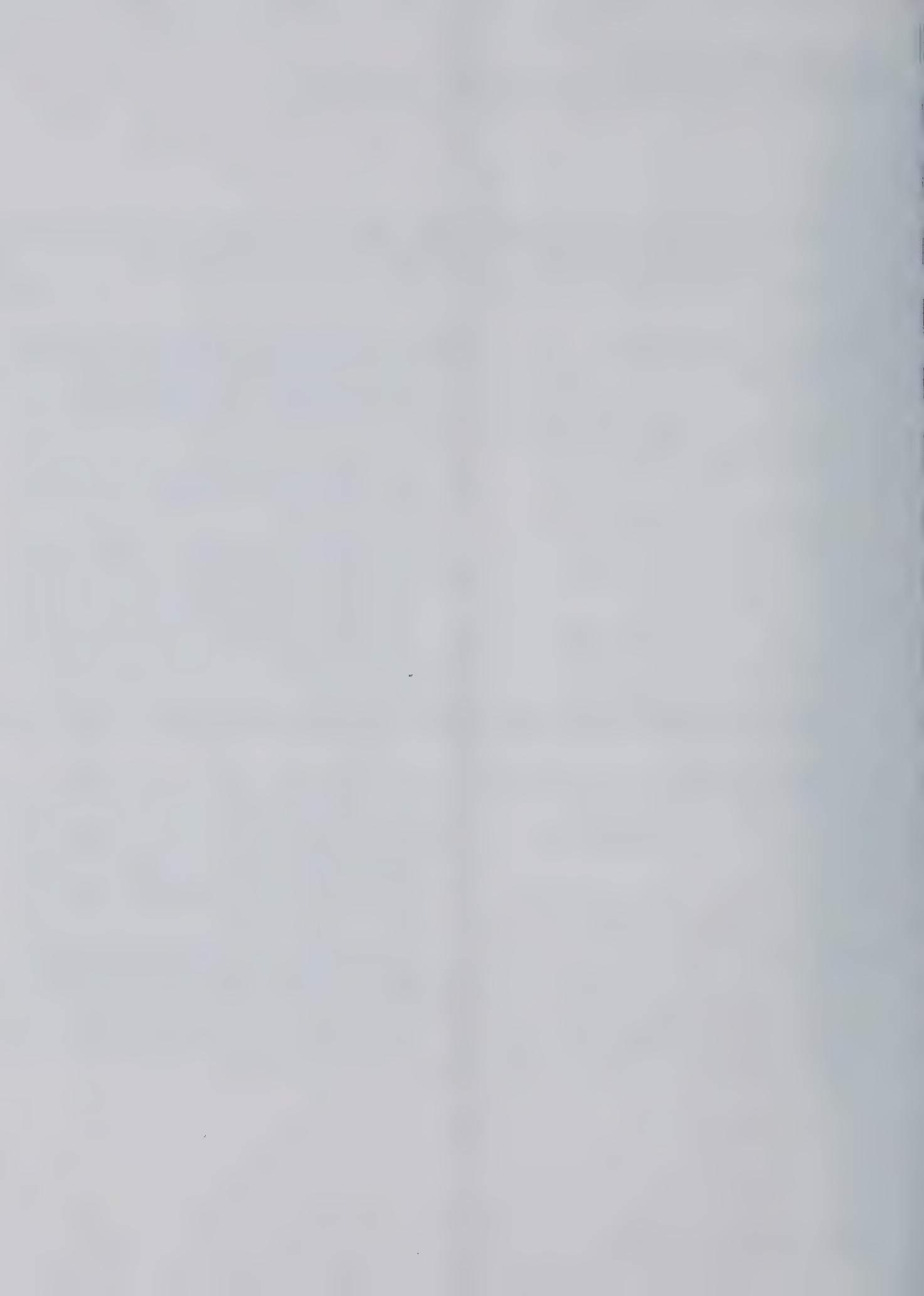


# East Coast Greenway Proposed Project Development Status

	Notes:	Municipal jurisdiction is assumed for any area that is not explicitly listed. "Existing" projects are those currently on lands open for public use. "Planned" projects are those that are already in some stage of planning. "Proposed" projects are those that are "missing links" in the corridor.		
Aerial Sheet	County	Municipality	Project Name	Crossings
				Rivers, Rails, Bridges
15, 16	20	Kearny	Newark Industrial Tract Corridor	Jurisdiction of crossing
			Hackensack Drawbridge Boonton Line	NJ Tpk
			Municipal Subtotal	NJDOT
16	21	Secaucus	Inactive Boonton Line	NJDEP/A COE
			Municipal Subtotal	NJ Transit
17	22	Jersey City	Inactive Boonton Line	NJT & Conrail
17			Bergen Arches	NJDOT
17			Jones Park	Munic
17, 18			6th St Embankment	NJDOT
18			Hudson River Walkway	Munic & NPS
			Municipal Subtotal	NJDEP/ ACOE
			County Subtotal	
			<b>GRAND TOTAL MILES</b>	
				19%
	<b>Alternate - Rt7/Belleville Pike &amp; Wittpenn Bridge</b>			
16, 17	20	Kearny	Link Conrail to Rt 7	NJDOT
			Rt 7/ Belleville Turnpike	Hudson Co
				NJ Tpk
				NJ Transit
17			Wittpenn Bridge	Conrail
			Municipal Subtotal	NJDEP/A COE
17	22	Jersey City	Lincoln Park	NJDOT
17			Montgomery Street	NJDOT
			Municipal Subtotal	Munic
			County Subtotal	NJDOT



# **East Coast Greenway Proposed Project Development Status By County**





## Chapter 6: Project Phasing

### Overview

The East Coast Greenway (ECG) will be completed segment by segment, depending on the level of support and resources available. Because some segments have existing facilities, little effort will be required to complete development within the standards set by the national East Coast Greenway Alliance, while other segments will require significant coordination, planning, design and construction because of physical conditions, facility needs and/or property issues required. Segments that require little development are good candidates for early action. To evaluate and compare the level of effort required to complete segments, a phasing plan is proposed that categorizes segments of the route into short, medium and long-term.

The phasing recommendations are intended only as a guide. There are other considerations that will influence the decision to move forward with development. For example, some route segments may have a high independent value to the community because of the destinations along the way, or it may be advantageous to complete a segment because of opportunities afforded by related development, such as bridge or roadway construction.

The actual time frame for the completion of the route through New Jersey will depend on the political and financial resources provided by the agencies that take ownership of each segment. Identifying local leadership and working with each community to gain the support needed will be key to the continued development of the route.

### Phasing Recommendations

#### *Introduction of the "Short-, Mid- and Long-Term Development Opportunities Charts"*

The Development Opportunities Charts summarize the anticipated timeframe for development of each of the proposed projects. Projects estimated to have the potential for implementation within the next five years are included in the Short-Term Chart. This includes existing facilities that only need minor enhancements and signing, and many of the on-road facilities that may require only striping and signing. Some new path segments are included in the short-term category where it appears that the land is readily available for immediate construction, or where minor connecting segments to existing facilities are all that are required.

The medium-term development time frame includes any project estimated to have the potential for implementation in a five to fifteen year timeframe. This includes any project that is likely to require a study, design, and funding application process before construction can begin. This includes the majority of the new shared use path segments.

# East Coast Greenway

## Proposed Project Development Status

Short Term Development Opportunities <i>(less than 5 year expected time frame)</i>		
Municipality	Project Name	Recommendations required for ECG Designation
<b>Somerset County</b>		
South Bound Brook	D&R Canal Tow Path	At-Grade crossing treatment - CR 527
Franklin	D&R Canal Tow Path	Signing
<b>Middlesex County</b>		
New Brunswick	D&R Canal Tow Path	Signing
Piscataway	Johnson Park	Through shared use path under Rt 18
Highland Park	Johnson Park	Signing
	Donaldson Park	Through shared use path required
Edison	Riverfront Path 2	Construct shared use path & local rd improvs
	Thomas Edison Co. Park	Construct through shared use path
	Raritan Center	Construct bike lanes & sidewalk
	Middlesex Greenway	Pave shared use path
	Roosevelt Park	New connection to Rt 1 through park
	Menlo Park Connection	Construct bike lanes & sidewalk
Woodbridge	Raritan Center	Construct bike lanes & sidewalk
	Middlesex Essex Turnpike	Construct bike lanes & sidewalk
	Merrill Park	Through park shared use path needed
	Middlesex Avenue	Construct bike lanes & sidewalk
	Long Hill Park	Through park shared use path needed
Rahway	New Brunswick Avenue	Construct bike lanes & sidewalk
	Rahway CBD Roadways	Construct bike lanes & sidewalk
Cranford	High Street	Construct path and bike lanes & sidewalk
Union	Chestnut Street/Globe Road	Construct bike lanes and sidewalk
		New off-road path (steep grade along GSP)
	Selfmaster Parkway	Construct bike lanes and sidewalk
Hillside	Hillside On-Road	Construct bike lanes and sidewalk
Elizabeth	Lower Rd.	Construct bike lanes and sidewalk
<b>Essex County</b>		
Newark	Dayton Neighborhood	Construct bike lanes and sidewalk
	Weequahic Park	Construct through shared use path
<b>Hudson County</b>		
Harrison	Frank E. Rodgers Blvd.	On-road shared use & sidewalks
E. Newark	Frank E. Rodgers Blvd.	On-road shared use & sidewalks
<b>Alternate - Rt7/Belleville Pike &amp; WittPenn Bridge</b>		
Kearny	Rt 7/ Belleville Turnpike	Construct bike lanes and sidewalks
Jersey City	Montgomery Street	Construct bike lanes and sidewalks
		Shared use path under elevated I-78

# East Coast Greenway

## Proposed Project Development Status

Medium Term Development Opportunities <i>(5 - 15 year expected time frame)</i>		
Municipality	Project Name	Recommendations required for ECG Designation
<b>Middlesex County</b>		
New Brunswick	Landing Lane Bridge	Inadequate XC - parallel off-road bridge
Highland Park	Riverfront Path 1	Construct shared use path
		Intersection & striping improvements
	Riverfront Path 2	Construct shared use path
Edison	Riverfront Path 2	Construct shared use path & local rd improvs
		2 mi rail to trail shared use path
		Local roadway improvements
	Raritan River Seaport Trail	Local roadway improvements
	Route 1 Utility Corridor	Construct shared use path
Woodbridge	Raritan Seaport Trail	Construct shared use path
Rahway	Rahway River Parkway	Construct shared use path
Clark	Rahway River Parkway	Construct shared use path
		At-grade crossing with warning signs
Winfield	Rahway River Parkway	Construct shared use path
Cranford	Rahway River Parkway	Construct shared use path & boardwalk
	Riverside Drive	Construct bike lanes and sidewalk
		Use tunnel under Cranford Station
		Construct bike lanes and sidewalk
	Nomahegan Park/Lenape Park	Link paths and at-grade crossing at 509
Springfield	Lenape Park	Construct through shared use path
Union	Lenape Park	Construct through shared use path
	[break in alignment thru Kenilworth]	
	Fairway Drive	Construct shared use path
	Kawameeh Park	Construct shared use path
	Suburban Golf Course	Construct through shared use path
	Elizabeth River Parkway	Intersection improvement
		Daylight Elizabeth River & build path
		Construct through shared use path
Kenilworth	Black Brook Park	Construct through shared use path
	Fairway Drive	Construct shared use path
Hillside	Elizabeth River Parkway	Construct shared use path
		Construct shared use path
<b>Essex County</b>		
Newark	Newark Greenway	Construct on and off road greenway
<b>Hudson County</b>		
Kearny	Newark Industrial Tract Corridor	Rail to trail or rail with trail
Secaucus	Inactive Boonton Line	Rail to trail or rail with trail
Jersey City	Inactive Boonton Line	Rail to trail or rail with trail
	Jones Park	Construct through shared use path
		Construct bike lanes and sidewalk
	6th St Embankment	Construct through shared use path
	Hudson River Walkway	Construct through shared use path
<b>Alternate - Rt7/Belleville Pike &amp; WittPenn Bridge</b>		
Kearny	Link Conrail to Rt 7	New Ramp required
	WittPenn Bridge	Construct bike lanes
Jersey City	Lincoln Park	On-road links and shared use path

# East Coast Greenway

## Proposed Project Development Status

Long Term Development Opportunities <i>(Greater than 15 year expected time frame)</i>		
Municipality	Project Name	Recommendations required for ECG Designation
<b>Hudson County</b>		
Kearny	Hackensack Drawbridge Boonton Line	Replace bridge with fixed bridge or ferry
Jersey City	Bergen Arches	Construct through shared use path



The long-term development time frame includes the two projects that will likely require a greater than fifteen year development window. These are the Hackensack River crossing between Kearny and Jersey City along the Boonton Rail line and the use of the Bergen Arches corridor, also in Jersey City. This is a conservative estimate that could be expedited for earlier construction.

## Project Leadership

More than one-third of the East Coast Greenway route is based on existing trails, projects already underway or projects under consideration by municipal, county, or state government. To complete the ECG though NJ, pieces of the Greenway will need project sponsors for improvements that are currently not under consideration by any agency. Several segments of the ECG will require more complex planning and design. For complex projects or segments involving state highway, state lead may be appropriate. For example, the following eight projects along the proposed alignment are currently being explored by NJDOT for further study and development:

- Route 7/Bellville Turnpike & Wittpenn Bridge in Jersey City
- Route 27 and Riverfront Park in Highland Park
- Route 1 and Riverfront Park in Edison
- Route 440 and King George Post Road in Edison
- Route 35 and New Brunswick Avenue in Rahway
- Route 27 and the Rahway River Parkway in Rahway
- Route 28 and Riverside Drive in Rahway
- Route 82/Morris Avenue and Suburban Golf Course in Rahway

Several additional projects will also need to be explored for further planning and concept development. A state or other regional lead will be required to complete these projects. The following are potential major ECG projects that will need a state or local agency to take the lead:

- Riverfront Path 1 (Shared Use Path) in Highland Park
- Riverfront Path 2 (Shared Use Path) in Highland Park
- Raritan Center (Shared Use Path) in Woodbridge
- Frank Rodgers Boulevard (Bicycle Lanes) in Harrison
- Newark Industrial Tract (Shared Use Path) in Harrison and Kearny
- Hackensack River Crossing (New Bridge) Secaucus and Jersey City
- Inactive Boonton Line (Shared Use Path) Secaucus
- Bergen Arches (Shared Use Path and Bridges) in Jersey City
- 6<sup>th</sup> Street Embankment (Shared Use Path and Bridges) in Jersey City
- Route 7/Bellville Turnpike (Ramp, Bike Lanes and Sidewalk) in Kearny

Acquiring funding for design, implementation and maintenance will be the responsibility of the lead agency.

Potential projects for NJDOT leadership are further detailed on the following page.



# East Coast Greenway Proposed NJDOT Lead Projects

	Notes:	Municipal jurisdiction assumptions include any area that "Existing" projects are those currently on lands open for "Planned" projects are those that are already in some g "Proposed" projects are those that have been developed			
Aerial Sheet	County	Municipality	Project Name	Crossings oads, Rails, Bridges	Jurisdiction of crossing
	Middlesex County				
		Highland Park			
3		1	Riverfront Path 1		NJDOT
				rade includes 1/4 mi on Rt 27	NJDOT
3		2	Riverfront Path 2		
		Edison			
3, 4		2	Riverfront Path 2		NJDOT
				unused rail corridor	NJ Tpk
		Woodbridge			
6		3	Raritan Center		NJDOT
	Hudson County				
		Harrison			
14, 15		4	Frank E. Rodgers Blvd.		Munic
					NY/NJ PA
15		4	West Hudson Park		NJDOT
					Munic
		E. Newark			
15		4	Frank E. Rodgers Blvd.		
		Kearny			
15, 16		5	Newark Industrial Tract Corridor		NJ Tpk
				- under	NJDOT
		6	Hackensack Drawbridge Boonton Linnstile bridge		NJDEP/ACOE
		Secaucus			
16		7	Inactive Boonton Line		NJ Tpk
				- under	NJ Transit
		Jersey City			
17		7	Inactive Boonton Line		NJT & Conrail
				- under	NJDOT
17		8	Bergen Arches		Munic
17, 18		9	6th St Embankment		Munic
	Alternate - Rt7/Belleville Pike & Wittpenn Bridge				
		Kearny			
16		10	Link Conrail to Rt 7		NJDOT
16, 17		10	Rt 7 / Belleville Turnpike		Hudson Co
					NJ Tpk
					NJ Transit
					Conrail



# East Coast Greenway

## Proposed NJDOT Lead Projects

Notes: Municipal jurisdiction assumptions include any area that is not clearly State or County ownership, likely including private property												
"Existing" projects are those currently on lands open for public use and may need additional improvements for through East Coast Greenway routing												
"Planned" projects are those that are already in some governmental planning pipeline, whether funded or not												
"Proposed" projects are those that have been developed as missing ECG links in the "Existing" or "Planned" project network required for through connectivity												
Aerial Sheet	County	Municipality	Project Name	Existing	Currently Planned	ECG Proposed	Sub Totals	Recommendations	Jurisdiction along Link	Crossings	Roads, Rails, Bridges	Jurisdiction of crossing
Off Road (miles)	On Road (miles)	Off Road (miles)	On Road (miles)	Off Road (miles)	On Road (miles)							
	Middlesex County											
3	Highland Park	1	Riverfront Path 1			1.2		1.2	Construct Shared Use Path	Munic	Rt 27 - under	NJDOT
3		2	Riverfront Path 2				0.4	0.4	Intersection & Striping improvements Construct Shared Use Path	Munic/ NJDOT Munic	Alternate - Rt 27 - at-grade includes 1/4 mi on Rt 27	NJDOT
3, 4	Edison	2	Riverfront Path 2			1.5	0.5	2	Construct 1/2 mi shared use path & local rd improvs 2 mi rail to trail shared use path Local roadway improvements	Munic & Conrail Conrail Munic	Rt 1 -under tall bridge NJ Tpk - under along unused rail corridor	NJDOT NJ Tpk
6	Woodbridge	3	Raritan Center			2.8			Construct Shared Use Path	Munic	Rt 440 - under	NJDOT
	Hudson County											
14, 15	Harrison	4	Frank E. Rodgers Blvd.			1.2	1.2		On-road shared use & sidewlks	Munic	Local roadways	Munic
15		4	West Hudson Park			0.6	0.6		Construct through Shared Use Path	Munic	PATH - under Rt. 280 - under Local roadways	NY/NJ PA NJDOT Munic
15	E. Newark	4	Frank E. Rodgers Blvd.			0.02	0.02		On-road shared use & sidewlks	Munic		
15, 16	Kearny	5	Newark Industrial Tract Corridor			2.8	2.8		Rail to Trail or Rail with Trail	Conrail	Rt 95 (NJTPK W) - under	NJ Tpk
		6	Hackensack Drawbridge Boonton Line						Replace bridge with fixed bridge or ferry	Conrail	Rt 7 / Belleville Tpk - under Hackensack River - turnstile bridge	NJDOT NJDEP/AOC
16	Secaucus	7	Inactive Boonton Line			0.9	0.9		Rail to Trail or Rail with Trail	Conrail	Rt. 95 (NJTPK E) - under	NJ Tpk
										Conrail	NJ Transit - under	NJ Transit
17	Jersey City	7	Inactive Boonton Line			0.9	0.9		Rail to Trail or Rail with Trail	Conrail	multiple active rail lines	NJT & Conrail
17		8	Bergen Arches	1.1			1.1		Construct through Shared Use Path	Conrail	Rt 1 & 9/Tonnele Ave - under	NJDOT
17, 18		9	6th St Embankment	0.9			0.9		Construct through Shared Use Path	Conrail	Munic roadways - if at-grade level used 7 Municipal streets	Munic Munic
	Alternate - Rt7/Belleville Pike & WittPenn Bridge											
16	Kearny	10	Link Conrail to Rt 7			0.01	0.01		New Ramp required	NJDOT	Link between at-grade rail and Rt 7	NJDOT
16, 17		10	Rt 7 / Belleville Turnpike	2			2		Construct bike lanes and sidewalks	NJDOT	CR 508/ Newark Jersey City Tpk	Hudson Co
											NJ Tpk - under	NJ Tpk
											NJ Transit - under	NJ Transit
											Conrail - under	Conrail



## Funding

Because the East Coast Greenway is made up of a variety of existing and proposed municipal, county and state owned and managed trails, funding for the Greenway will come from a variety of sources. As municipalities, counties and the state take the lead on developing different segments of the Greenway, several funding options will be available for completing each project including federal, state, county and municipal aid programs. The Appendix includes a compilation of funding sources that could be used to finance segments of the Greenway.

There are several federal and state funding sources for acquisition and infrastructure improvements. For example, federal funding programs administered by NJDOT, the Surface Transportation Program (STP) and Congestion Mitigation and Air Quality (CMAQ) give states the flexibility to invest in a wide variety of transportation activities including bicycle and pedestrian facilities. Transportation Enhancements (TE) funds are probably the best known source of federal funds available for bicycle and pedestrian improvements. This program focuses on projects that are designed to promote alternative modes of transportation while preserving and protecting environmental resources. In each state, ten percent of STP funds must be allocated to a set of ten specific types of Transportation Enhancements projects. Pedestrian, bicycle and conversion of abandoned railway corridors to trails are types of projects that can receive TE funds. In New Jersey, NJDOT's Division of Local Aid administers the TE program as well as a number of state funded programs that could be used to construct ECG projects. These include the Locally Initiated Bicycle Projects and the Safe Streets to School program. These funds are provided to municipalities and counties for the construction of bicycle and pedestrian facilities.

Additional state funds include the Green Acres program administered through the NJ Department of Environmental Protection. Green Acres can supply municipality's grants and loans which can be used to fund projects such as multi-use trails and trail head facilities. The source of these funds is from state bond issues. Green Acres funding can also be used by state, county and municipal governments for land acquisition.

Counties and municipalities can provide funds in the Capital Improvement Budget, requiring developers to provide facilities through zoning regulation, or by referendum. For example, all the counties in the northern route alignment study area have dedicated funding for open space acquisition and facilities development.

## Typical Facility Cost Estimates

The ECG relies on designation of local projects for its implementation. Approximately two-thirds of the ECG in the North Jersey study area are either already existing, or currently in some level of planning. The other one-third, approximately 24 miles, is envisioned as a combination of on- and off-road facilities. The following section lists typical costs for the types of facilities that could be developed as links in the East Coast Greenway. Site-specific conditions could affect these costs dramatically. For this reason these cost should be used only as a general guide for typical facilities.

**Unpaved Shared Use Path Construction**

## Path Surface

12-foot Soil-Cement Multi-Purpose Path .....	\$75-\$85K/ per mile
12-foot Aggregate/Stone Path.....	\$70-\$110K/ per mile

**Paved Shared Use Path Construction**

## Path Surface

10-12-foot Asphalt Multi-Purpose Trail .....	\$120K-\$1M/ per mile
10-12-foot Concrete Multi-Purpose Trail .....	\$250-\$750K/ per mile

**On-Road Trails****I. Restriping & Signing**

Conducted as part of a regularly scheduled roadway resurfacing project and does not include right-of-way acquisition and changes to signal actuation.

Bicycle Lanes .....	\$6,000-\$8,000/ mile
Wide Outside Lanes.....	\$5,000-\$7,000/ mile

**II. Reconstruction/Widening**

Right-of-way cost estimates are not provided; not all projects will require the acquisition of right-of-way. Real estate values fluctuate dramatically and will need to be adjusted on a parcel-by-parcel basis.

***Bicycle Facilities***

Urban Bike Lanes (4' widening, both sides) .....	\$200,000/mile
Rural Bike Lanes (4' widening, both sides).....	\$110,000/mile
Paved Shoulder (4' widening, both sides) .....	\$110,000/mile
Wide Curb Lanes (2'-4' widening, both sides – To create 14' or 15' wide lanes) .....	\$130,000/mile

***Pedestrian Facilities***

Sidewalks (6' wide - concrete, 2 sides).....	\$100K-\$500K/ mile
Pedestrian Signal Heads (for 2 corners) .....	\$1,800
(for 4 corners) .....	\$3,700
Pedestrian Overpass .....	\$300/sf
Crosswalk Striping.....	\$250 each
Curb Extensions.....	\$4,500 each

**Signage**

Bike Route/"Share the Road" sign .....	\$250/sign
Information Signs .....	\$800-\$1,200/each
Direction Signs.....	\$150-\$250/ each
Warning Signs.....	\$150-\$250/ each
Mile Markers .....	\$150-\$250/ each

*(all costs, including signage are typical and are not specific to the East Coast Greenway)*

## Furniture/Furnishings

Benches .....	\$500-\$700/each
Trash Receptacles .....	\$300-\$500/each
Security Bollards.....	\$200-\$300/each
Bicycle Racks .....	\$400-\$600/each
Fencing (Board-on-Board).....	\$15-\$25/per linear ft.
Gates.....	\$600-\$800/each
911 Emergency Phones .....	\$500-\$1,000/each
Restrooms .....	\$25-\$50K/each
Landscaping .....	\$15-\$30K/per mile
Lighting.....	\$20-30K/per mile

Costs do not include land acquisition costs. Labor costs for construction are included in these facility estimates. Costs for engineering and design development are estimated at 10-15 percent of construction costs. Costs for facility development are averages and will vary according to site-specific factors (for example, an asphalt trail with site preparation and amenities could cost between \$120,000 and \$1 million per mile).

Construction and installation costs can often be reduced through enlisting the assistance of local government, businesses and organizations. Many trail projects in New Jersey and across the country have benefited from donations of materials and labor, including trees, shrubs, mulch, benches and signs. In some cases, local businesses have donated, or provided at a reduced cost, surfacing materials for trails projects. Donors can be recognized through plaques, markers or signs along the trail route.

## Next Steps

The NJ Committee for the East Coast Greenway will have a major role in shepherding the development and implementation of the projects needed to complete the route.

One of the first steps will be to introduce the proposed route to all the affected municipalities. Although meetings were held with representatives from Newark and Jersey City, it will be necessary to meet with representatives from all twenty-two municipalities to gain endorsements for the route. Because not all municipalities were able to attend review meetings, it will be important to work with municipal representatives to further refine routes to meet local needs/priorities.

The ECG will traverse state, county, municipal and privately owned land. All state agencies having jurisdiction over portions of the proposed route will need to be notified and play an appropriate role in the design and implementation of the route through their property. Resolutions of support will need to be passed in all municipalities and counties along the route and endorsements from all state and county agencies will need to be collected.

The NJ Committee will also have a major role in promoting the East Coast Greenway vision to all stakeholders by collecting resolutions of support and forming or brokering partnerships with other stakeholders including non-profits and local committees. Opportunities for partnering

with organizations such as health, environmental, and senior citizen groups should be explored to widen the network of supporters and promote route development.

NJDOT has demonstrated support for the ECG through funding this study and has expressed interest in continuing support by developing some of the projects that affect or cross roadways under their jurisdiction. Eight projects which involve intersections along the ECG are currently being explored by NJDOT for further study and development. The NJ ECG Committee will need to identify project sponsors for segments that are not currently in planning or development stages by any state, county or local agency. It is strongly recommended that the route's status should remain "proposed" until all stakeholders and property owners have reviewed and approved the alignment through their jurisdiction. It is anticipated that as more contacts are made, the route will continue to be refined.

Education and awareness are important components of the success of the ECG. The NJ Committee for the East Coast Greenway must continue to offer encouragement and support for the route, making sure that the public is informed of the location and vision for the ECG, and that stakeholders continue to be involved as the project moves forward.



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# APPENDICES

1. Advisory Committee Contact List
2. County-level Data Collection Meeting Attendance Record
3. Key Meeting Memorandum
  - a. July 21, 2003 - Joint Meeting: Advisory Committee and NJ Committee for the ECG; Review of Alternatives
  - b. September 9, 2003 – Advisory Committee Meeting; Selecting a Single Route
  - c. September 23, 3003 – NJ Committee for the ECG; Endorsement of the Recommended Route
4. Bergen Arches Cross Sections, Existing, Proposed, ECG Recommended
5. Project Funding Guide
6. Environmental/Cultural Screening Technical Memorandum





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Northern New Jersey  
Route Location Study

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## APPENDIX 1

### Advisory Committee Contact List





East Coast  
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Route Location Study

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## APPENDIX 3

### Key Meeting Memorandum

- a. July 21, 2003 - Joint Meeting: Advisory Committee and NJ Committee for the ECG; Review of Alternatives
- b. September 9, 2003 – Advisory Committee Meeting; Selecting a Single Route
- c. September 23, 3003 – NJ Committee for the ECG; Endorsement of the Recommended Route



# *Data Collection Meeting Record*

May 21, 2003

## *Middlesex County-Level Meeting*

When: Thursday, May 1, 2:00 to 4:00

Where: Meeting Room, Middlesex County Planning Department, 40 Livingston Ave., New Brunswick

### **List of Attendees:**

1. Anthony Gambilonghi, Supervising Planing, Transportation, Study Committee Liaison
2. Caroline Granick, County Planner, Bikeways
3. George M. Ververides, Dept. of Planning, NBNJ
4. William Kruse, County Planner
5. William Van Nest, County Parks
6. Larry Kolodziej, County Engineering
7. Ron Tindall, NJTPA
8. Mike and Anne Kruimer, Central Jersey Bike Club
9. John Waltz, Bikeways Engineering
10. Elizabeth Brody, NJ ECGA

## *Union County Level Meeting*

When: February 13, 2003

Where: Union County Engineering Department

### **List of Attendees:**

1. Dean Talcott, Union County
2. Jim Lynch, Union County
3. Sean Ryan, Union County
4. Elizabeth Brody, NJ ECGA

## *Essex County Level Meeting*

When: Tuesday, May 6, 10:00 am to 12:00 noon

Where: Conference Room, City of Newark Division of Transportation Planning, 255 Central Avenue, Newark, NJ 07103

### **List of Attendees:**

1. David Antonio, Newark Transportation, East Coast Greenway Study Advisory Committee
2. Kevin Moore, Weequahic Park Association, Liaison for the East Coast Greenway Alliance
3. Jim Bartell, Transportation Planner, Essex County Public Works
4. Neil Molinaro, Essex County Parks and Recreation
5. Teena Schwartz, Essex County Office of Environmental Affairs
6. Carol Johnston, Ironbound Community Corporation
7. Ron Tindall, NJTPA
8. Anker West, NJ Committee of the East Coast Greenway Alliance
9. Al Kent, Liberty to Water Gap Trail representative
10. Simone Mangili, Trust for Public Lands
11. John Waltz, Bikeways Engineering
12. Elizabeth Brody, NJ Committee of the East Coast Greenway Alliance

## **Hudson County Level Meeting**

When: Friday, May 2, 10:00 to 12:00 noon

Where: Brennan Courthouse, County Executive Conference Room, 583 Newark Avenue, Jersey City, NJ 07306

### **List of Attendees:**

1. Mariano Vega, Hudson County Public Resources and Study Advisory Committee liaison
2. Stephen Marks, Hudson County Office of Strategic Revitalization, East Coast Greenway Alliance liaison
3. Bob Cotter, Jersey City Planning
4. Rachel Kennedy, Jersey City Transportation Planning
5. Ron Tindall, NJTPO
6. Kamal Saleh, Meadowlands Commission Transportation Planning
7. Bill Neyenhouse, DEP
8. Jerry Willis, NPS, Liberty to Water Gap Trail Representative
9. Mike Selender, Local Advocate
10. John Waltz, Bikeways Engineering
11. Christopher Campos, Hudson TMA
12. Bob Jasek, County Engineer
13. Demetrio Arencibia, Assistant County Engineer
14. John Lane, Hudson County Representative for the MPO
15. Joe Cecchini, Hudson County Parks
16. Michael Ascolese, Hudson County
17. Janet Larwa, Hudson County Revitalization
18. Elizabeth Brody, NJ ECGA

## Phase I: *East Coast Greenway Northern New Jersey Route Location Study*

RBA #J3366.03

### Joint Meeting: Advisory Committee and New Jersey Committee of the East Coast Greenway

## Meeting Memorandum

**When:** Monday, July 21, 2003, 6:30 to 8:30 pm

**Where:** John Cotton Dana Library, Rutgers University Newark Campus, 185 University Avenue, Newark, NJ

### Attendee List Attached

### Meeting Objectives:

*To review potential routes identified through the study; and*

*To receive Committee input and recommendations for further investigation in Phase II of the Study.*

### Exhibits:

"County Route Summary Maps" - 1 Regional Overview Map; 4 County Routing Alternative Maps; Summary of Route Characteristics; Photo Board

Exhibits on display from 4:30 to 6:30

### Introduction and Project Overview:

Sheree Davis introduced members of the team: B. Feldman, L.A. Von Hagen, M. Dannemiller, A. Schultz, reviewed the study purpose and NJDOT's partnership with ECG.

Karen Votava briefly reviewed how the NJ Committee and the East Coast Greenway Alliance are involved in identifying an ECG Route through the City of Newark. The state committee has substantial role in identifying the route and recommending it to the national organization.

Rob Kushner then showed the video of the ECG that is intended for promoting the ECG in New Jersey.

### Study Process and Route Selection:

Annette Schultz provided an overview of study objectives, study process steps, purpose of the meeting, study vision, route selection criteria, route selection process and study process. She observed that the study process is designed to "tap local knowledge" to identify possible routes; many meetings and interviews were held with county agencies and other informed sources to gather information about existing and proposed facilities that might be incorporated into a cross-New Jersey route.

## Review Draft Route Alternatives Map:

Mike Dannemiller provided an overview of fieldwork and interviews. He reviewed the possible routes that had been identified through the study process.

### Committee Evaluation:

Members were divided into two "break out" groups to review the routes through Essex and Hudson Counties and through Somerset, Middlesex and Union Counties, respectively. The following points summarize comments and observations gathered during the breakout group sessions.

#### General Comments received:

- Consider developing both the Raritan/Rahway AND the Green Brook/Watchung corridors. As a loop route it is appealing.
- Tunnel under embankment (Summit) where do we go from here?
- Consider suspending a shared use path from the existing bridge structures to help minimize environmental impacts – there are several precedents for this
- Define order of magnitude cost for the bridges, to help communities plan for what is needed to make the ECG a practical reality

#### Raritan River/Rahway River Corridor Comments:

- Connects major regional educational facilities (Rutgers & Middlesex County)
- Provides good commuting, ride to work, opportunities
- The Edison and Woodbridge areas have significant population centers
- Edison Tower Historic site is a nice stop
- Union Co. Arts Center in Rahway a good attraction
- Many bike/pedestrian bridges crossing the Rahway
- Great restaurants in New Brunswick
- MetroPark Rail station 4<sup>th</sup> largest in NJ

#### Green Brook/ Watchung Corridor Comments:

- This route would be hilly and more difficult for trail users.

#### Newark Corridor:

- Endorse using Branch Brook Park and the Boonton rail line
- Ironbound connection to Brazilia (large and small) and Iberia
- Ferry Street should not be used to access the Jackson Street Bridge

#### Historic Rail Corridor:

- MetroStar Stadium will be located in Harrison on Jackson Street, adjacent to the bridge over the Passaic River

After the break out session, the group reconvened for a group discussion. Mike Dannemiller facilitated this discussion, asking members to identify what they liked or disliked about the routing alternatives.

- Newark connects 4 of 7 Olmsted Parks: Weequahic, Independence, Riverbank, Branch Brook
- Incorporating Branch Brook provides better access to north (Lenape only has footpath); likes plan at practical scale; likes the Bridge Street crossing
- Likes that plans are on a practical scale, they are not too grandiose
- The less money needed to build the trail, the more likely it will get built

- Like to access trail via Raymond Blvd because it's a wider road with connection to Ironbound restaurants
- Like going through Watchung Reservation and if there is Greenbrook off-road section, did we consider S. Mountain Reservation (yes, too much on road)
- Prefers the Eastern (Raritan) option because of linkages to Rutgers, Middlesex County College, and larger populations in Edison and Woodbridge. It's longer but would hit more people.
- Raritan/Rahway is flatter route than Green Brook/ Watchung
- Would love to see both routes (Green Brook/Watchung & Raritan/Rahway); keep as a loop?
- Both should be done but eastern is preferable (don't cut out Perth Amboy)
- Eastern (Raritan) option should be the priority since it uses the Middlesex Greenway and because Perth Amboy has committed to changing their downtown to accommodate ECG plans.
- Would like to show project progress to others, will there be site tours or other material available?
- Need to keep a focus on destinations e.g. transit, historic points, town centers, etc. Could list which routes better address these types of destinations.
- Broad Street Station – yes – route connects
  - should connect with both stations
  - cross at Jackson Street Bridge
- Newark Airport
  - can loop via Penn Station (need connection to Weequahic Park)
  - need trail access to/from the airport itself or monorail. Receive lots of requests to bike after landing at airport
- Process very professional/natural – keep it up.

### Next Steps:

Elizabeth Brody then presented the next steps for the NJ Committee. She indicated that she was pleased with the progress made to date with the routing study, and pointed out that the NJ Committee is responsible for assisting with activities planned for Phase 2 of the study. She emphasized that maps and exhibits produced through the study could be used by the NJ Committee to take out to municipalities. The NJ Committee will be responsible for securing municipal endorsements for the recommended route. She also suggested that a "traveling display" might be designed for use at festivals and other community events.

Annette Schultz explained that the consultant team will work with the Advisory Committee to recommend a single route for further study. This route will be presented at stakeholder meetings and at future NJ Committee meetings for further comment in Phase 2 of the study, which should be completed by the end of the year.

Annette requested that all comment forms should be turned in at the end of the meeting, or may be completed and submitted later. Comment forms have been combined in a separate document.

The meeting was concluded at 8:30pm.

*These minutes are the author's recollection of the meeting and represent a complete and accurate record of the discussion and decisions made. Amendments to this record shall be made in writing to the author within five business days of receipt.*





# Memorandum of Meeting

**FROM:** Mike Dannemiller

**PROJECT:** ECG Project at VTPI, Rutgers New Brunswick  
Advisory Committee  
RBA Project #J3366.03

**DATE:** September 9, 2003  
1:00 – 3:00 PM

**ATTENDEES:** Annette Schultz, RBA  
Mike Dannemiller, RBA  
Celeste Tracy, DRHT  
Mike and Anne Kruimer, ECGA/CJBC  
Caroline Granick, Middlesex County Planning Department  
Tom Sexton, RTC  
Elizabeth Brody, NJ ECG  
Mariano Vega, Hudson County/Jersey City  
Sean Ryan, Union County

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## Objectives:

*To review characteristics of route alternatives identified in Phase I; and  
To recommend a single route for further investigation and for presentation to stakeholders in Phase II.*

### 1. Introduction and Project Overview

- Annette Schultz explained that Phase I of the project is nearly complete as the consultant team documents findings in a Technical Memorandum. The July 21 Joint meeting of the Study Advisory Committee and the NJ Committee of the East Coast Greenway provided additional insight into the several route options that were presented. Meeting Memorandum and Comments received were provided to the Study Committee Members.

### 2. Study Process

- Annette presented the objectives of Phase 2 of the Study:
  - to recommend a single route for further study with the assistance of the Study Advisory Committee,
  - to present the single route to county and municipal stakeholders,
  - to secure the formal endorsement of the NJ Committee and the national East Coast Greenway Alliance.

- Annette explained that it is important to identify a single route because:
  - i. A significant investment will be required to further investigate the ECG route, which is over 50 miles long, so that it would be more economical to focus further investigation on a single route.
  - ii. Securing municipal endorsements along the selected route is required, and will be the responsibility of the NJ Committee; presenting a potential route to municipalities that may not be selected might cause confusion and loss of support for ECG implementation.
- The major steps and milestones of the Phase 2 Study were discussed as illustrated in a Flow Chart and Schedule provided to Committee Members.
- Committee Members will be asked for their assistance with the upcoming regional stakeholder meetings.

### 3. Screening Route Alternatives

- Mike Dannemiller provided an overview of the route options, and presented a screening matrix that compared alternatives according to key criteria (see ECG Route Screening Matrix Handout). After group discussion, each member provided his/her recommendation for a single route. The consensus decisions are listed below.

#### Action Items/Decisions:

- The Advisory Committee directed that all further study focus on the Raritan/Rahway corridor rather than the Green Brook/Watchung corridor. This was decided by a 6 to 1 margin, with 2 Advisory Committee members not being present. Detailed comparisons of each of the corridors were presented and discussed in detail, focusing on ECG routing criteria, and other screening criteria. See attached meeting handouts for details.
- The Roosevelt Park option off of the Route 1 Power trail in Edison should be followed rather than the Gills Lane alignment. There is a current construction project widening the northeast rail corridor crossing.
- Passaic River Crossing was recommended to be along the **Jackson Street Bridge**. The Bridge Street Bridge would also be endorsed as a second choice.
- The Hackensack River Crossing is recommended to be along the Erie Lackawanna/Boonton rail line. If a new elevated structure cannot be constructed in a reasonable timeframe, then an on-road alternative along the Route 7/Belleville Turnpike and the soon to be dualized WittPenn Bridge over the Hackensack River.
- The Bergen Arches are recommended to be used with an **at-grade path** option. This was not considered during the Bergen Arches re-use plan prepared recently, but would compliment any of the numerous transportation mode options considered for development of the middle level (below street grade) transportation options.

**Discussion Items and Comments:**

- The items below represent the group discussion regarding the selection of a single route.

**Middlesex/Union/Somerset County Area**

- The Highland Park Master Plan does include a link between Johnson Park and Donaldson Park; this may include an on-road bikeway section along S. Adelaide Avenue.
- There is a utility corridor under the Route 27/Albany Street Bridge over the Raritan River. This may be available for trail routing. There is also the possibility of constructing a floating bridge/path section for the ECG to traverse the Route 27 Bridge along the bank of the Raritan River. The Middlesex County Utilities Authority contact is John Wiley, former mayor of Metuchen. Walter Stoechel has examples of floating pathway sections from Oregon.
- The Rahway River corridor was the original spine of the Union County parkway vision.
- The landfills in Edison are slated for aggressive redevelopment by Edison. The land use may be significantly different by the time the ECG is a practical reality. This could include establishing an attractive commercial riverfront development.
- Routing the ECG along the Raritan River would pass through currently derelict areas with landfills, etc.; the success of this route will depend on the success of the redevelopment plans for this area.
- The Army Corps of Engineers is planning to dredge the Raritan River up to New Brunswick. This will allow for easier ferry navigation of the river, which is planned and will make the river corridor more attractive.
- There are many overnight accommodation options along the Raritan/Rahway corridor.
- There is equestrian access potential along the D&R canal section of the Raritan corridor, and potentially along other segments as well.
- The Green Brook/Watchung corridor provides a more varied physiographic landscape, or more varied terrain. This may present a physical challenge to potential ECG patrons.
- The Army Corps of Engineers flood control project along the Green Brook offers the potential for constructing a path along the top of the levees throughout the corridor.
- There may be issues with unexploded ordinances from the old Raritan arsenal along the Raritan river corridor.
- The Rahway River Corridor connects the ECG to a larger population area and larger business districts than the Green Brook corridor.
- Because of the larger population base and major transit stops, the Raritan/Rahway route is likely to have greater use as a commuter and transportation corridor, with more economic development opportunities along the way.
- The currently planned trail projects along the Green Brook may actually be the first route developed; the Green Brook trail is likely to be developed regardless of whether the ECG is routed along this alternative.

- There is an extensive variety of waterfowl species along the Raritan corridor.
- A "level playing field" was just opened on Saturday, 9/6/03, in Roosevelt Park, along the Rahway corridor. It may be the first in NJ to offer fully accessible facilities.

### Essex/Hudson County Area

- The Bridge Street Passaic River crossing may offer a less congested location as compared with the Jackson Street crossing. Local access to Bridge Street may also be easier due to the current intersection configuration.
- The Historic Rail corridor has both a willing buyer and a willing seller, this will help to facilitate re-use of the corridor. Tom Sexton (Rails to Trail) is in the process of meeting with these parties, and will keep the project management up to date on the status of this issue.

### 4. Next Steps

- A meeting will be held with the NJ Committee of the ECG on September 23 to present the Study Advisory Committee's recommended route.
- The next meeting of the Study Advisory Committee will be held in early November to review the findings from the regional stakeholder meetings and to prepare for the consultant team presentation of routing study to the national East Coast Greenway Alliance.
- Beth Brody gave a status report on the activities of the NJ Committee of the ECG.
  - i. The NJ Committee approved adding both Newark and Jersey City to the list of cities that the ECG should go through in NJ.
  - ii. Beth will work with the consultant team to develop an outreach plan for the NJ Committee. The consultant team will provide outreach materials (project fact sheet, mapping exhibit, etc.) for use by the Committee.
- The two regional stakeholder outreach meetings will be held during the daytime hours. Location ideas:
  - i. SOUTHERN
    - Middlesex College
    - Johnson & Johnson
    - Old Raritan Senior Center
  - ii. NORTHERN
    - Liberty State Park
    - Ellis Island – the maintenance bridge is now open for public use
- The meeting was adjourned at 3:30.

### Absentee Members Polled

Following the Advisory Committee Meeting, the consultant team contacted absentee Advisory Committee members to discuss the route selection. Sheree Davis, David Antonio, and Steve Jandoli all concurred with the decisions and route justifications from the Advisory Committee Meeting discussion.

David Antonio responded with the following note:



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The Department of Engineering supports the routing into Hudson County via the Jackson Street bridge as it traverses through Penn Street and the Ironbound. If the Jackson Street bridge is indeed proven to be a difficult choice for the route because of its physical attributes (ingress/egress ramps, traffic patterns), then the Bridge Street will be an acceptable second choice.

The Department of Engineering has no objection with the commentary offered by the other stakeholders.





## Phase II: East Coast Greenway Northern New Jersey Route Location Study

RBA #J3366.05

### New Jersey Committee of the East Coast Greenway Meeting

## Meeting Memorandum

**When:** Tuesday September 23, 2003, 6:30 to 8:30 pm

**Where:** Union County Parks Department, Elizabeth, NJ

#### Attendee List Attached

#### Meeting Objectives:

To review the recommended route and secure the endorsement of the NJ Committee

#### Exhibits:

"County Route Summary Maps" - 1 Regional Overview Map; 4 County Routing Alternative Maps revised to show one route alignment option, recommended by the Advisory Committee

Annette Schultz explained that the consultant team worked with the Advisory Committee to recommend a single route for further study.

#### Action Items:

The NJ Committee voted [12 to 1] to endorse the new North Jersey Route, as prepared under this study as the alignment for the ECG in NJ.

The new North Jersey Route will be presented at the November 2003 annual national ECG meeting in Charleston SC.

The introduction of the new North Jersey Route to Municipal Officials will occur at two invitation only outreach meeting to be held in late October. NJDOT is coordination date and location for the meetings.

NJ Committee does want to host the annual national ECG meeting in 2004.

#### Discussion Items and Questions:

Was safety considered in planning the route? -

*Yes personal security, and conflicts with motorized traffic safety concerns were considered when planning the route.*

**Presentation recommendations:**

The new North Jersey Route represents the “Grit and Green” of New Jersey.

In Jersey City the Municipal Officials meeting could be broadcast on cable TV, possibly even syndicated onto local cable channels throughout the area.

Recommendation for Municipal Officials meeting to start off with Bike 101, before ECG overview. Possible show local (NYC) examples of what can be built. Public health perspective could also be helpful

The executive summary could include a CD of the powerpoint show, or possibly a link to the show posted on the internet, on ECG.org's site.

**Next Steps:**

Elizabeth Brody then presented the next steps for the NJ Committee. The NJ Committee will be responsible for securing municipal endorsements for the recommended route. She also suggested that a “traveling display” might be designed for use at festivals and other community events.

The NJ Committee is looking for a few volunteer to field check an on-road routing that closely parallels the new North Jersey Route. Mike Kruimer volunteered to check the area south of Roosevelt Park in Edison, Mike Selender volunteered to check the area west of the Passaic River. Volunteers are still needed for the central portion of the route.

The meeting was concluded at 8:30pm.

*These minutes are the author's recollection of the meeting and represent a complete and accurate record of the discussion and decisions made. Amendments to this record shall be made in writing to the author within five business days of receipt.*



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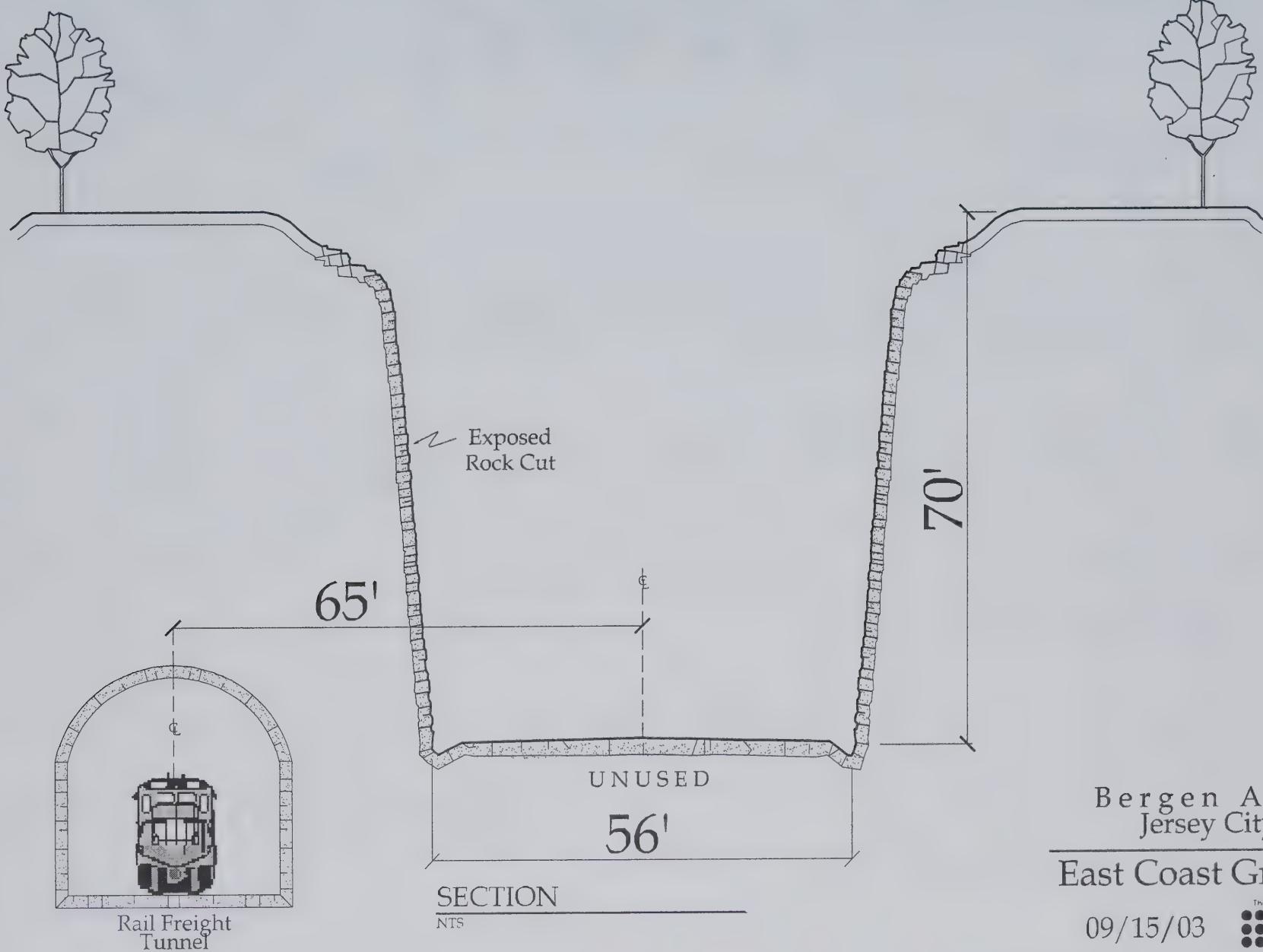
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## APPENDIX 4

### Bergen Arches Cross Sections, Existing, Proposed, ECG Recommended



# Existing —



Bergen Arches  
Jersey City, NJ

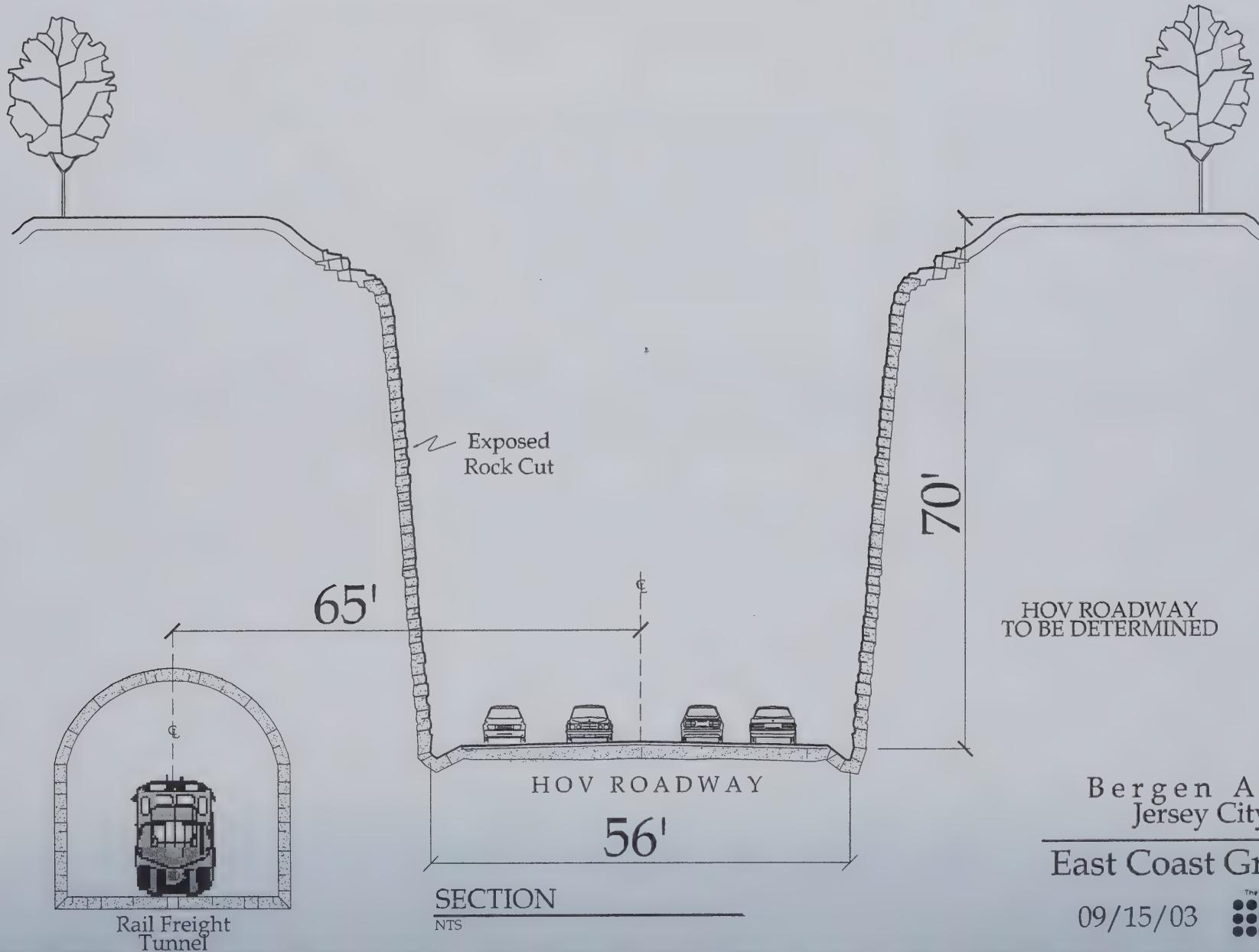
East Coast Greenway

09/15/03

The RBA Group

# Currently Recommended

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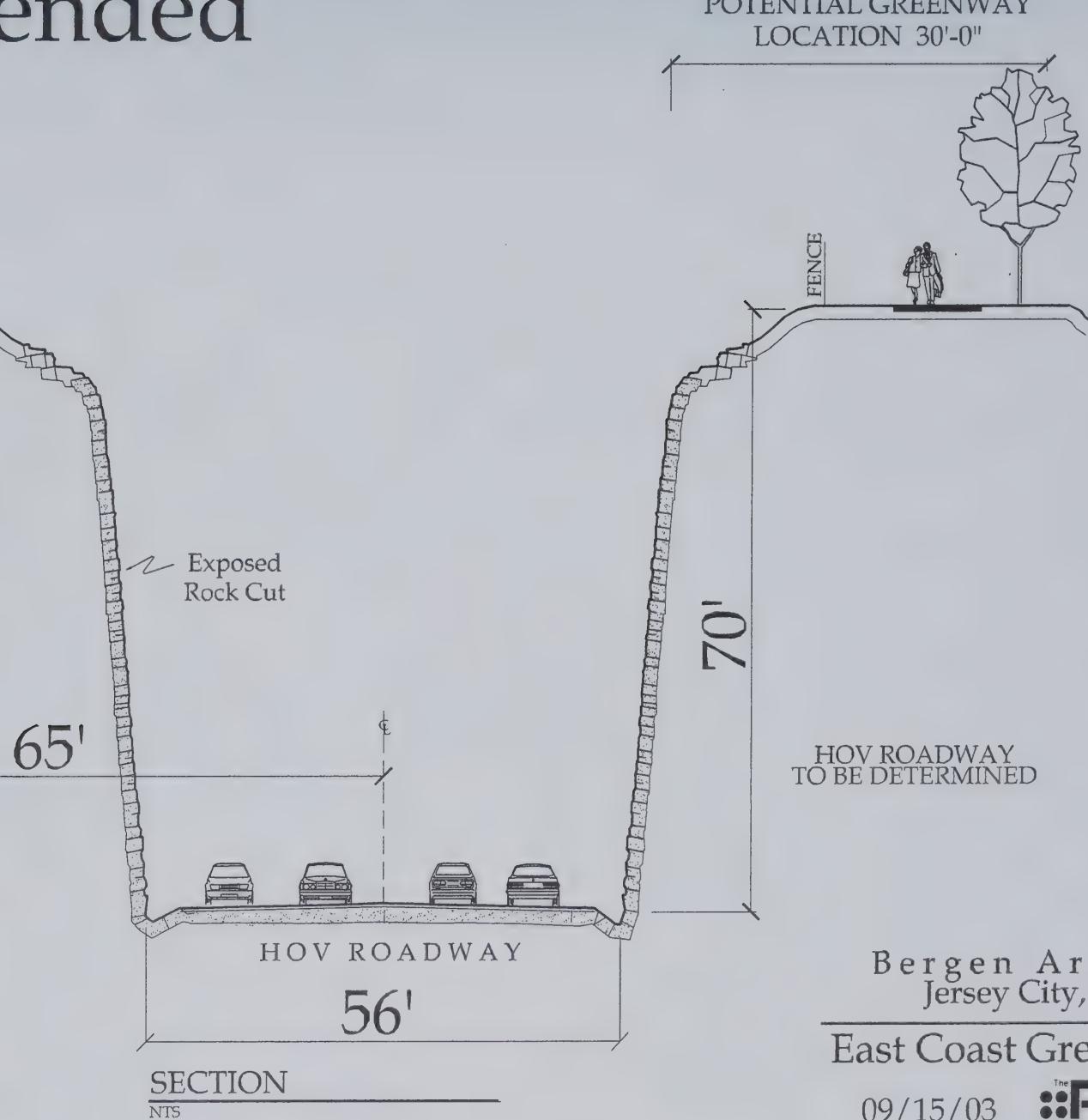
Bergen Arches  
Jersey City, NJ

East Coast Greenway

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# ECG Recommended



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## APPENDIX 5

### Project Funding Guide



## PROJECT FUNDING GUIDE

### Federal Funding

All the major funding programs under TEA-21 include bicycle and pedestrian facilities and programs as eligible activities.

#### National Highway System (NHS)

The NHS is comprised of the 42,000 mile Interstate system and another 113,000 miles of roads identified by the states based on their importance to the national and regional economy, and their connectivity. NHS funding-for project on NHS roadways- can be used for bicycle and pedestrian improvements on or on land adjacent to any highway on the NHS system, including Interstate highways. This includes *incidental* improvements within larger projects which enable bicycle compatibility (e.g., paved shoulders, bicycle safe drainage grates, etc., designated bicycle facilities (i.e., bikeways: signed routes, bike lanes, paths), and pedestrian accommodations such as sidewalks, signals, overpasses, crosswalks, etc. It also includes the funding of *independent* bicycle and pedestrian projects along (within the right of way) or in the vicinity of (associated with) NHS roadways. Independent bicycle and pedestrian projects would be those initiated primarily to benefit bicycle and pedestrian travel. Projects could include shoulder paving, bicycle safe drainage grates, construction of sidewalks or bikeways, installation of pedestrian signals, crosswalks or overpasses.

#### Surface Transportation Program (STP) Funds

A broadly defined program giving states wide flexibility to invest in a wide variety of transportation activities. Bicycle and Pedestrian facilities and walkways are specifically listed as eligible activities under this program. As with NHS, pedestrian and bicycle improvements can include *incidental* improvements within larger projects which enable bicycle compatibility (e.g., paved shoulders, bicycle safe drainage grates, etc., designated bicycle facilities (i.e., bikeways: signed routes, bike lanes, paths), and pedestrian accommodations such as sidewalks, signals, overpasses, crosswalks, etc. It also can include the funding of *independent* bicycle and pedestrian projects along (within the right of way) or in the vicinity of (associated with) roadways. Independent bicycle and pedestrian projects would be those initiated primarily to benefit bicycle and pedestrian travel. Projects could include shoulder paving, bicycle safe drainage grates, construction of sidewalks or bikeways, installation of pedestrian signals, crosswalks or overpasses. Under TEA-21, it is specified that these funds may be used for the modification of sidewalks to comply with the Americans for Disabilities Act.

It should be noted that STP funds may be used for non-construction projects (such as maps, brochures, public service announcements) related to safe bicycle use and walking.



## Local Scoping and Local Lead Projects

The Local Scoping program (in the MPOs) provides a set aside of federal (STP) funds directly to the sub regions for the advancement of project proposals through the NEPA process, ultimately making that project eligible for inclusion in the TIP (as a Local Lead project). Subregions (counties) apply for inclusion in the program, which are screened and pass through a competitive selection process.

Projects that clearly have no significant adverse environmental impacts may be eligible to move directly to the Local Lead program. Counties (plus municipalities partnering with counties) can receive STP funds for final design and construction of projects which are included in the TIP. Local Lead projects are selected via a competitive selection process.

Each of these sources of funds can be used to advance bicycle or pedestrian projects. As yet, only a handful of local scoping/local lead projects have directly addressed non-motorized needs as independent projects. Local Scoping/Local lead projects can also benefit pedestrians if they incorporate, incidentally, features that address pedestrian travel needs.

## Transportation Enhancements

This is probably the best known source of federal funds available for pedestrian and bicycle improvements. In each state, ten percent of STP funds must be allocated to a set of 10 specific types of projects known as Transportation Enhancements. Pedestrian and bicycle projects and the conversion of abandoned railway corridors to trails are two of the 10 project types. Other project types (e.g., landscaping/scenic beautification, rehabilitation and operation of historic transportation....facilities - canals, tow paths, bridges, viaducts) may directly benefit or provide for pedestrian needs).

The program is administered by NJDOT's Division of Local Aid.

## Hazard Elimination Program

Another STP program set aside, 10% of the STP program is to be used to fund Safety projects. Funding is provided for safety-oriented improvements. Potentially improvements which either directly or indirectly improve conditions for pedestrians can be funded. In New Jersey, the program (project selection) is handled by the NJDOT Bureau of Traffic Engineering. In general, projects are selected on the basis of excessive occurrence of a particular accident type at a given location. This often involves some sort of intersection modification such as resurfacing with a skid resistant pavement surface. In some cases Safety improvements have included the installation of pedestrian signal heads.

## Congestion Mitigation and Air Quality (CMAQ)

As was the case under ISTEA, under TEA-21, pedestrian and bicycle improvements are among the types of projects eligible for CMAQ funding.

## National Recreational Trails Fund (Simms Trails System Act)

An annual sum is apportioned to the states for uses in developing trails related projects, many of which benefit pedestrians. Funding is from federal motors fuels taxes collected on sale of fuel for motorized recreational vehicles (ATVs, off road motor cycles, snow mobiles). The program (including solicitation of projects and project selection is administered by the Office of Natural Lands Management in the Department of Environmental Protection.

## Scenic Byways

A small grant program under which pedestrian projects may be funded if they are in fulfillment of a management plan for a designated scenic byway. Designation of the scenic byway must be in accordance with a Scenic Byways program developed and adopted by the state.

New Jersey has adopted a Scenic Byways program, and, as a case study, a management plan for the first proposed scenic byway in the state (State Route 29, in Mercer and Hunterdon Counties, along the Delaware River).

Benefits of adoption as a Scenic Byway under the Program could include direct funding of projects (assuming the passage of federal transportation legislation which includes Scenic Byways funding); and, through preferential treatment in the funding/selection process for other funding sources administered by the Department, for projects which are in fulfillment of a scenic byways management plan.

## Section 402 Safety Funds

Funds administered by National Highway Traffic Safety Administration (NHTSA) to be spent on non-construction activities to improve the safety of the traveling public. Pedestrian and bicycle projects are on the NHTSA priority list. In each state, the program is administered by a designated Highway Safety representative. In New Jersey, the designated representative is the Director of the Division of Highway Traffic Safety in the Department of Law and Public Safety.

Pedestrian projects have been funded, including the development and dissemination of brochures and PSAs promoting safe pedestrian practices, a 3-E (Engineering, Enforcement, Education) program in cooperation with the City of Trenton (includes road signs and crosswalk marking). This program may be repeated in other communities with high pedestrian accident experiences, where there is local support.



## Federal Transit Administration Funds

Title 49 U.S.C. (As amended by TEA-21) allows the *Urbanized Area Formula Grants, Capital Investment Grants and Loans, and Formula Program for Other than Urbanized Area* transit funds to be used for improving bicycle and pedestrian access to transit facilities and vehicles. TEA-21 also created a *Transit Enhancement Activity* program with a 1% set-aside of Urbanized Area Formula Grant funds designated for, among other things, pedestrian access and walkways and bicycle access, including storage equipment and installing equipment for transporting bicycles on mass transit vehicles.

## Federal Community Development Block Grant (CDBG) Program

Federal block grant funding from the Department of Housing and Urban Development can and has been used to fund pedestrian improvements. Projects must occur in an eligible low- or moderate-income areas (as defined by HUD) or benefit special needs groups. Funding flows directly to counties and municipalities. In Monmouth County, for example, a compact of 49 of the 53 municipalities works together to identify and select eligible projects (in 1997, \$3.854 million was available to fund projects. Some municipalities receive funding directly. Examples of projects funded which benefit pedestrians has included streetscape improvements. Sidewalk installation, curb ramps, and building modifications to meets ADA access requirements.

## State Funding

### Local Aid for Centers of Place

A New Jersey Department of Transportation funding program designed to assist municipalities who have formally participated in implementation of the New Jersey State Development and Redevelopment Plan (SDRP). Such participation entails designation as a Center by the State Planning Commission, preparation of a Strategic Revitalization Plan and Program which has been approved by the Commission, or entrance into an Urban Complex, which has been approved by the Commission. The program provides the opportunity to apply for funds to support non-traditional transportation improvements that advance municipal growth management objectives as outlined in the action planning agenda of the municipality.

Participation of municipalities in the SDRP ensures eligibility to compete for funds in the program.

Typical projects include:

- **pedestrian and bicycle improvements**
- adaptive reuse of abandoned railway corridors (**pedestrian and bicycle trails**)
- scenic or historic transportation improvements
- landscaping/beautification of transportation related facilities (streetscape improvements)
- rehabilitation of transportation structures

In general, eligible projects are similar to Transportation Enhancements projects. Only SDRP centers are eligible to apply for funding.

An annual solicitation for project proposals sent to all eligible municipalities. The program is administered by the NJDOT Division of Local Aid in cooperation with the Bureau of Statewide Planning.

### County Aid Program

This program provides funding to counties for transportation projects. In FY99, the amount of funding available (subject to appropriation by the Legislature) is \$58.5 million. These funds are allocated to New Jersey's 21 counties by a formula that takes into account road mileage and population. Annually, each county develops a Capital Transportation Program which identifies all projects to be undertaken and their estimated cost. Projects may improvements to public roads and bridges under county jurisdiction, public transportation or other transportation related work. Funding can be used for design, ROW, and construction. The program is administered by the NJDOT's Division of Local Aid.

Theoretically, independent pedestrian and bicycle projects can be funded under the county aid program; however, few, if any, independent pedestrian and bicycle projects are currently funded through this program.

As state funded projects, all projects funded under county aid program are subject to the new NJDOT policy which requires that all *bicycle and pedestrian traffic should be incorporated in The planning, design, construction and operation of all projects and programs funded or processed by the NJDOT.*

### Municipal Aid Program

The Municipal Aid Program provides funding to municipalities for transportation projects. All 567 municipalities may apply. Projects may be improvements to public roads and bridges under municipal jurisdiction. Applications are solicited, evaluated, and rated by NJDOT staff. The results are presented to a Screening Committee comprised of Municipal Engineers and Department Staff, appointed by the Commissioner. The Committee evaluates the projects and makes recommendations to the Commissioner for approval.

The Department will pay 75% of the award amount at the time that the award of construction is approved by the Department with the remaining amount to be paid upon project completion.

As is the case with the County aid program, independent pedestrian and bicycle projects can be funded under the municipal aid program. The program is administered by NJDOT's Division of Local Aid. As state funded projects, all projects funded under municipal aid program are subject to the new NJDOT policy which requires that all *bicycle and pedestrian traffic should be incorporated in The planning, design, construction and operation of all projects and programs funded or processed by the NJDOT.*

### Discretionary Aid Program

The Discretionary Aid Program provides funding to address emergency or regional needs throughout the state. Any county or municipality may apply at any time. These projects are

approved at the discretion of the Commissioner. The program is administered by NJDOT's Division of Local Aid.

As state funded projects, all projects funded under the discretionary aid program are subject to NJDOT policy which requires that all *bicycle and pedestrian traffic should be incorporated in The planning, design, construction and operation of all projects and programs funded or processed by the NJDOT.*

The Department will pay 75% of the award amount at the time of the award of construction with the remaining amount to be paid upon project completion.

### Locally Initiated Bicycle Projects

This funding program was initiated in 2000 and provides funds for municipalities and counties for the construction of bicycle projects. These could include roadway improvements that enable a roadway or street to safely accommodate bicycle traffic, or designated bikeways (signed bike routes, bike lanes or shared use trails). The solicitation for project applications occurs at the same time as the solicitation for municipal aid projects. Applications received are evaluated, and rated by NJDOT staff. Based on this evaluation, a list of recommended projects is proposed to the Commissioner of Transportation, who makes the final selection. The program is administered by NJDOT's Division of Local Aid.

### School Safety Program (formerly Locally Initiated Pedestrian Projects)

This funding program was initiated in 2000 and was known as the Locally Initiated Pedestrian Projects program. Originally it provided funds to municipalities and counties for the construction of pedestrian access and safety improvements. Although there was an emphasis on funding projects that provided access to schools, any pedestrian facility project could be funded. In FY2004, the program was renamed to the School Safety Program, and proposed improvements now are required to improve pedestrian access along school routes. The solicitation for project applications occurs at the same time as the solicitation for municipal aid projects. Applications received are evaluated, and rated by NJDOT staff. Based on this evaluation, a list of recommended projects is proposed to the Commissioner of Transportation, who makes the final selection. The program is administered by NJDOT's Division of Local Aid.

### Liveable Communities Pilot Program

A program for the planning, design and implementation of municipal projects to further investments in the transportation infrastructure and to support non-traditional transportation projects developed at the local level to advance community based needs and goals.

### Green Acres

State Green Acres grants and loans can and have been used to fund pedestrian projects such as multi use trails and trail head facilities. Funding for state, county and local governments (and non-profits - acquisition only with a 50% match) is available for land acquisition and facilities



development. The source of these funds are state bond issues. The program is administered by the Green Acres Office in the Department of Environmental Protection.

### **County or Municipal Capital (Public Works) Funding**

County or Municipal funding can be used to fund pedestrian improvements sidewalks, trails, crosswalks signals, traffic calming, etc., on rights of way under county or municipal jurisdiction, just as they are used to fund the construction and rehabilitation of roadway improvements for cars, by including the project in the municipal (or county) budget, or bonding for it. Pedestrian improvements can be fully or partially assessed against the property owners along whose frontage the improvement (ordinarily a sidewalk) is placed.

As with other categories of funding, pedestrian improvements may be incidental to (a part of) larger, roadway projects; or they can be independent, i.e., solely to address pedestrian needs.

Even small amounts of funding in county or municipal sources can be very important since they may be used to leverage or show local commitment in applications for other funding sources (e.g., TE, Local Aid For Centers, etc.).

### **Special Assessment Districts**

Another form of municipal funding is through the creation of a local **Special Assessment District**. The Borough of Fair Lawn (for example) established a Special Improvement District in which assessments are made on those seeking to develop or improve property. The Borough provided \$100,000 in matching funds. The funding is used for infrastructure improvements, including pedestrian improvements within the district. Here, also, funding can be used to leverage or show local commitment in applications for other funding sources.

### **Transportation Development Districts**

A joint state/county program in New Jersey in which transportation improvements within a defined growth area is funded through a combination of public funding and developer contributions (for new developments) within the district. Theoretically, independent pedestrian improvements can be included in the infrastructure improvement plan developed through a joint planning process for the district, and funded through the joint.

### **Developer Provided Facilities**

The current Residential Site Improvement Standards currently in effect in New Jersey require new residential developments to include sidewalks.

Other municipal and state zoning or access code regulations have been used to require developers to provide both on site and off site improvements to benefit pedestrians.





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## APPENDIX 6

### Environmental/Cultural Screening Technical Memorandum



# *East Coast Greenway, Phase 1 Northern Route Location Study*

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## *Draft Preliminary Environmental Screening*

*Submitted by*  
*The RBA Group*

**June 2004**

*East Coast Greenway, Phase 1, Northern Route Location Study*  
*Draft Preliminary Environmental Screening*

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# ***East Coast Greenway, Phase 1, Northern Route Location Study***

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## **Draft Preliminary Environmental Screening**

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### **I. PROJECT PURPOSE AND DESCRIPTION**

#### **A. Project Purpose and Need**

The purpose of the ECG Route Location Study is to identify potential alignments that would meet the goals, objectives and criteria of the East Coast Greenway Alliance. A preliminary environmental screening was conducted in this first phase of investigation to identify major environmental opportunities and constraints. This was accomplished through the collection of environmental data that was incorporated into project GIS base mapping, providing a portrait of the general environmental characteristics of the four county study area.

Following the selection of several alternatives for field investigation, a limited amount of preliminary field investigation was also conducted to verify conditions at key locations. The objective of this preliminary environmental screening in evaluating proposed routes is to establish the types of issues that would be encountered in future development phases of each proposed alignment. It is important to note that future work phases in the pipeline process would include more detailed environmental studies.

#### **B. Project Description**

This project represents Phase I of a route location study for a multi-use trail proposed as a northern New Jersey extension of the East Coast Greenway. The New Jersey Department of Transportation (NJDOT) initiated this project to provide technical assistance to the NJ Committee of the East Coast Greenway Alliance.

For the purposes of this preliminary environmental screening, the study corridor encompasses an area of approximately 250 feet on either side of the proposed East Coast Greenway facility (see the attached Environmental Constraints Map). Said study corridor was investigated to assess potential fatal flaws to the proposed project.

#### **C. Level of Environmental Study**

A Geographic Information Systems (GIS)-based Environmental Screening has been conducted for the proposed East Coast Greenway (ECG), Northern New Jersey Route Location Study through the Counties of Essex, Hudson, Somerset, Middlesex and Union, at the request of the New Jersey Department of Transportation (NJDOT). This preliminary environmental screening was conducted for the purpose of identifying "fatal flaws" that may impede further proposed route alignment considerations for the ECG.

RBA has reviewed numerous materials including: New Jersey Department of Environmental Protection (NJDEP) Geographic Information Systems (GIS) digital geospatial data for various environmental constraints; NJDEP Protocols for the Establishment of Exceptional Resource Value Wetlands Pursuant to the Freshwater Wetlands Protection Act (N.J.S.A. 13-9B-1 et seq.) Based on Documentation of State or Federal Endangered or Threatened Species (July 2002); NJDEP, Division of Parks and Forestry, Bureau of Natural Lands Management's Atlas of Natural Heritage Priority Sites; N.J.A.C. 7:9B-1.14 et als. NJDEP Surface Water Quality Classifications; USGS Topographic mapping; Hagstrom Street maps for the appropriate counties; County provided reports on park and open space location, type and size; U.S.

# *East Coast Greenway, Phase 1, Northern Route Location Study*

## *Draft Preliminary Environmental Screening*

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Environmental Protection Agency Priority Wetlands mapping and NJ Transit GIS data for bus and rail station and corridor locations.

Base mapping for the study corridor, entitled Regional Environmental Constraints Map and included as Figure 1, was prepared to facilitate data gathering and review of the above listed materials. The base mapping consists of various vector-based environmental, political and transportation data layers along a quarter-mile wide corridor surrounding the proposed facility and its parallel alignments. Pertinent environmental constraints data was digitally overlaid on the transportation and political layer base mapping and then reviewed for potential "fatal flaws" that may impede further design considerations. Limited field investigations were conducted for portions of the proposed alignment to verify the accuracy of the mapped information.

The areas of investigation included: wetlands; surface waters/water quality; USGS identified floodplains; threatened and endangered species information including NJDEP Landscape Project data, transportation related information (including major and minor roads, rail and bus stops and corridors and pertinent ferry terminal locations) and NJDEP and EPA GIS mapped sites of potential hazardous materials concern. The following sections briefly describe the underlying methodologies, define technical terms and discuss the relevant data acquired for this investigation. See typical examples of constraints in Figure 2, Photographs and Descriptions.

This report was prepared by staff from the Environmental Department, Ecology Unit of the RBA Group, Morristown, New Jersey during 2003.

## **II. SOCIAL, ECONOMIC, ENVIRONMENTAL INVENTORY AND ANALYSIS**

### **A. Air Quality / Noise Issues**

#### **1. General Issues**

The proposed East Coast Greenway project, as it is designed to accommodate non-motorized traffic, is not anticipated to adversely affect the local or regional air quality levels. Construction of the proposed facility is anticipated to be at-grade for most of its length, and elevated where necessary for new stream crossings. The proposed project is located within EPA-designated Ozone 8-hour non-attainment areas for the northern New Jersey region. Within this region, all other National Ambient Air Quality Standards (NAAQS) have been satisfactorily met.

Noise monitoring/modeling will not be required for this project due to the nature of the proposed facility. Although the facility passes adjacent to and/or within the immediate vicinity of several sensitive receptors along its alignments, the facility, as it is designed to accommodate non-motorized traffic, is not anticipated to adversely affect sensitive receptors.

#### **2. Sensitive Receptors**

Sensitive receptors identified along the alignments included a mix of residential areas, day care centers, hospitals, nursing homes and senior centers. However, due to the nature of the proposed facility, adverse impacts from project implementation are not anticipated.

# ***East Coast Greenway, Phase 1, Northern Route Location Study***

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### **B. Section 4(f) Properties**

#### ***1. Recreational Facilities***

Within the study corridor there are several identified parks and open space areas under the jurisdiction of the NJDEP Green Acres Program, the appropriate county in which the parcel is located (Essex, Hudson, Union, Somerset or Middlesex), and the individual municipalities in which the subject parcels are located. The proposed bike/ped facility, while connecting existing local and regional parks, is being designed to minimally impact these areas through the construction of new impervious paved paths, where necessary. Where available, the project proposes to make use of existing facilities within each park.

Digital geospatial data from the NJDEP GIS was reviewed to determine the relative extent and proximity of recreation and open space-identified parcels to the proposed facility alignment. Parks, Recreation and Other Open Spaces data were taken from a variety of sources including, but not limited to: Planning Areas of the Draft Final State Development and Redevelopment Plan (2000), NJDEP Land Use/Land Cover GIS coverages (1986, 1995/97 datasets) for Bergen, Essex, Hudson, Middlesex and Union Counties (all recreation identified parcels) and Environmental Research Systems Institute (ESRI) provided data for New York and New Jersey.

NJDEP identified open space data represents both state owned, protected open spaces and recreation areas as well as federally owned and protected open space and recreation areas (and military parcels containing large tracts of undeveloped land), water supply management areas (WSMA), reservoirs and utility conservation easements in New Jersey. These coverages, though providing statewide data, are incomplete. NJDEP Land Use/Land Cover data includes both identified parks, publicly owned lands and lands open to the public and a variety of recreational facilities that may or may not be part of established parks (such as baseball fields, tennis courts, basketball courts). These may be associated with schools, industrial and commercial firms, or a community housing development. Privately owned open spaces (lands held by non-profit organizations with no public access) are not included under the Section 4(f) heading.

#### ***2. Publicly Owned Open Spaces / NJDEP Green Acres Properties***

According to correspondence received from the State of New Jersey Green Acres Program, there are several encumbered properties either traversed by or are immediately adjacent to the proposed facility alignment. Encroachment onto said properties will require the prior approval of the NJDEP Green Acres Program and State House Commission along with an agreed-upon mitigation plan.

Digital geospatial data from the NJDEP GIS 1997 Land Use/Land Cover dataset was reviewed to determine the relative extent and proximity of recreation and open space – identified parcels. A brief site investigation was also utilized to confirm the initial findings of the State's GIS data.

It should be noted that diversion of public open space to other uses is subject to both review and approval of Green Acres as well as review under the Section 4(f) criteria found within the U.S. Transportation Act of 1966 if federal funds are being spent or a federal permit is needed for a transportation related facility. As required under the Transportation Act, impacts to publicly owned parks, recreational properties, wildlife/waterfowl refuges and properties having historical significance, which result from federally funded or federally permitted transportation projects, are generally prohibited unless certain criteria outlined under Section 4(f) of the Act

# ***East Coast Greenway, Phase 1, Northern Route Location Study***

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are met. Section 4(f) requires that the project sponsor show that there is no practicable alternative to the proposed action that would have less impact to those properties to which Section 4(f) pertains and that the project incorporate mitigative actions to minimize unavoidable impacts to said properties.

### ***3. Wildlife Refuge / Management Areas***

The proposed East Coast Greenway facility is proposing to provide access to and make use of existing parks and open space areas through construction of a paved bike/ped trail. The preliminary design routes the facility near or within a number of County and municipally – owned open space and recreation areas, as well as wildlife refuge and wildlife management areas.

Within Union County, the proposed facility is designed to access the Watchung Reservation, a County owned park with open space for forest preservation. Within Hudson County (and the New Jersey Meadowlands Commission), the proposed facility is being designed to either traverse or run adjacent to the Riverbend Wetlands Preserve and the Saw Mill Creek Wildlife Management Area. Given the nature of the project, it is anticipated that no adverse impacts will occur through project implementation.

## **C. Ecology Issues**

### **1. Wetlands**

Wetlands information, including approximate location and type, was obtained from the both National Wetlands Inventory (NWI) digital mapping, the NJDEP GIS database and limited site reconnaissance from public rights-of-way. NJDEP Mapped Wetlands are a graphical representation of wetlands data and it depicts both tidal and non-tidal wetlands boundaries as of 1986. This data is intended to serve as a resource for analysis rather than regulatory delineations. Wetland boundaries may change somewhat based on more in depth analysis and field delineations completed for regulatory purposes.

Wetland communities throughout the project area were dominated by a variety of native and invasive species and constituted a mix of community types, including emergent bogs, forested swamps, scrub-shrub dominated wetlands and tidally-influenced, vegetated communities. Refer to the attached Environmental Constraints mapping for approximate wetland community locations and types.

A preliminary review of the USDA Soil Surveys for each county was also conducted to approximate areas of previously mapped hydric soils to assist in approximating wetland limits. Subsequent to the above listed reviews, a preliminary site reconnaissance was conducted of the proposed route to verify the relative accuracy of available mapping.

***Field Investigation*** – Subsequent to the above described efforts, a limited site investigation was conducted from public rights-of-way to verify the approximate extent and nature of previously identified and mapped wetland complexes within the study corridor. The site investigation was also conducted to determine if any wetlands of significant size were not previously identified. Generally, it was found that wetland types, sizes and extents were found as previously identified and mapped. There were no complexes of significant size that had not already been previously identified.

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Freshwater wetlands within the State of New Jersey are identified by "resource classifications" and dictate the "transition area" assigned to a particular wetland. A transition area means an area of land adjacent to a freshwater wetland which minimizes adverse impacts on the wetland or serves as an integral component of the wetlands ecosystem (N.J.S.A. 13-9B-7). The three wetland transition area categories which currently are used by the State are "Exceptional", "Intermediate" and Ordinary." A description of these transition areas follow:

***Exceptional*** - Transition areas of 150' in width are required adjacent to those freshwater wetlands classified as having an exceptional resource value. The exceptional classification is determined by various factors. These factors include:

- a. The wetland contains documented habitat for threatened or endangered species for which there is an "area of documentation" for current or historic use by a threatened or endangered species of flora or fauna for breeding, resting, or feeding.
- b. The wetland is hydrologically connected to a water course classified as "Trout Production" by the Surface Water Quality Standards, N.J.A.C. 7:9B.
- c. The wetland presently is a present habitat for threatened or endangered species.

***Intermediate*** - Transitions areas of 50' in width are required for all freshwater wetlands not classified as exceptional or ordinary resource value.

***Ordinary*** - Freshwater wetlands that contain no transition area are considered "ordinary resource value wetlands." These are assigned to specific areas which include, but are not limited to, swales, ditches of human construction, man-made detention basins, and wetlands less than 5,000 square feet and that are surrounded by more than 50% development.

The official determination of the wetland resource classifications can only be made by NJDEP upon submittal and review of a formal wetland delineation and request for a Letter of Interpretation. RBA can assume resource classifications based upon available published data relating to endangered/threatened species sightings and water quality classifications, however, the data can change over time.

## **2. *Floodplains***

Floodplains within the project study corridor were identified through the use of NJDEP GIS datasets entitled "USGS Floodprone Areas" for both documented and undocumented types. Approximate boundaries of flood-prone areas are shown on the enclosed Environmental Constraints Maps. There is on the average about 1 chance in 100 that the designated areas will be inundated in any year. The flood-prone areas have been delineated through the use of readily available information on past floods rather than from detailed surveys and inspections. In general, the delineated areas are for natural conditions and do not take into consideration the possible effects of existing or proposed flood control structures except where those effects could be evaluated. Flood areas have been identified for: (1) urban areas where the upstream drainage basin exceeds 25 square miles, (2) rural areas in humid regions where the upstream drainage basin exceeds 100 square miles, (3) rural areas where in semiarid regions where the upstream drainage basin exceeds 250 square miles, and (4) smaller drainage basins, depending on topography and potential use of the flood plains.

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Floodprone areas were generally associated with both major and minor watercourses. In areas of proposed improvement within documented floodprone areas, construction is anticipated to be limited to either at-grade concrete or asphalt walkways or pier-supported boardwalks.

### **3. Hydrology Issues**

Groundwater within the area of the project corridor is classified as both II-A and III-A (due to the underlying Merchantville geologic formation). Class II-A is the default classification for groundwater in New Jersey, and its primary designated uses are potable water and conversion (through conventional water supply treatment, mixing or other similar techniques) to potable water. Secondary designated uses include agricultural and industrial water. Both existing and potential potable water uses are included in the designated use (N.J.A.C. 7:9-6).

Class III-A areas are defined by the NJDEP as all ground water within major aquitards. According to Figure 2 in the Appendix of N.J.A.C. 7:9-6, the project area is intersected by mapped Class III-A designated areas. Major formations within the project limits that are designated Class III-A include the Raritan and Magothy formations. The primary designated uses for Class III-A ground water is the release or transmittal of ground water to adjacent classification areas and surface water, as relevant. Secondary designated uses include "any reasonable uses".

A portion of the Middlesex County alignment is located over the New Jersey Coastal Plain aquifer system. According to the USEPA, aquifers in this area of the State are designated as a *sole source aquifers*. The depth to seasonally high water is variable within the limits of study.

The project corridor contains watercourses that have been classified by the State of New Jersey regarding water quality. The Surface Water Quality Standards are contained in N.J.A.C. 7:9B and apply to all surface waters of the State. Watercourses located within the project corridor are associated with both the Passaic/Hackensack and Raritan River drainage basins. The following table lists the 27 watercourses that are either intersected by or adjacent to the proposed facility alignment (names as identified by the NJDEP GIS data):

Stream Name	NJDEP Surface Water Quality Classification
Black Ditch	To be determined
Blue Brook	FW2 - NT
Bonygut Brook	To be determined
Bound Brook	FW2 - NT
Coppermine Brook	To be determined
Several sections of the D&R Canal	FW2 - NT
Elizabeth River (main stem)	FW2 - NT
Fish Creek	To be determined
Green Brook	FW2 - TM / FW2 - NT
Hackensack River	SE2
Martins Creek	To be determined
Mile Run	To be determined
Nomahegan Brook	FW2
Orchard Creek	To be determined
Parkway Branch	To be determined

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Stream Name	NJDEP Surface Water Quality Classification
Passaic River (main stem)	FW2 – NT / SE2
Passaic River (unnamed tributaries)	FW2 - NT
Penhorn Creek	SE2
Rahway River	FW2 – NT / SE2
Raritan River (main stem)	FW2 - NT
Raritan River (unnamed tributaries)	FW2 - NT
Red Root Creek	To be determined
Rum Creek	To be determined
Second River	FW2
Silver Lake	To be determined
South Branch Rahway River	SE2
West Branch Elizabeth River	FW2 - NT

Water quality classifications noted within the project corridor consist of the following qualifiers:

FW-2 - The general surface water classification for those fresh waters that are not designated as FW-1 or Pinelands Waters. (FW-1 waters are those waters that have been designated to be maintained in their natural state of quality and not subjected to any man-made wastewater discharges or increases in runoff from anthropogenic activities. These waters typically include those with unique ecological, recreational, or water supply significance.)

NT - The water classification for those waters considered "Non Trout."

TM – Waters that support trout maintenance, but not trout production or spawning habitat.

There are also numerous existing crossings where no new structures will be required. However, new sidewalk or trail facilities may be constructed adjacent to the roadway at these locations, within the existing bridge or culvert limits.

Acid-producing deposits are known to be contained within several geologic formations located in the Atlantic Coastal Plain physiographic province. The proposed project is located in areas of known acid-producing soils, as defined by the Areas of New Jersey Acid-Producing Deposits, Technical Manual for Stream Encroachment, Section 2.5 – Technical Notes Concerning Acid-Producing Deposits, as well as descriptions of intersected mapping units as described in the USDA Soils Surveys of Middlesex and Somerset Counties.

Construction of the proposed trail is anticipated to require minimal earth disturbance as the facility is planned to be at-grade. Construction of retaining walls and bulkheads, required at watercourse and other elevated crossings, may require the disturbance of significantly more soils. In these areas of anticipated major soils disturbance, a geotechnical (soils) investigation should be conducted to determine the actual nature, pH and extent of the soils within known areas of potentially acid producing soil formations. Should acidic soils be present, the project will follow all guidelines set forth in the Standards for Soil Erosion and Sediment Control in New Jersey concerning the excavation, removal and storage of these soils.

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### **4. Vegetation and Wildlife**

The highly variable nature of the study corridor's land use patterns exhibits wide ranges of areas of "good wildlife habitat"; mainly associated with existing parklands, reservations and wildlife management areas. Good wildlife habitats were also associated with greenways paralleling river corridors (i.e., – Green Brook, Rahway River).

The proposed facility is not anticipated to impact shellfish beds, primary fishing areas, previously identified beds of submerged aquatic vegetation or surf clam in areas adjacent to or downstream of the proposed facility.

It is anticipated that some clearing of trees and other vegetation will be necessary to implement to the proposed facility in these areas. However, the preliminary nature of the off-road and on-road alignments still allows for shifts where necessary in order to avoid major adverse impacts to vegetation and continuous wildlife habitats. On-road alignments will utilize existing paved areas and sidewalks, thereby eliminating the need to clear vegetation.

Several different vegetative communities are intersected by the proposed facility, including both upland and wetland forests, mixed forests, brushland/scrubland, herbaceous/old field, modified wetlands and transitional areas.

#### **4.1 NJDEP Landscape Project Data**

The NJDEP, Division of Fish and Wildlife, Endangered and Non-game Species Program has developed digital data for the purposes of identifying and mapping critical wildlife habitats for threatened, endangered and species of special concern. Subsequent to the compilation and creation of this dataset, the NJDEP Land Use Regulation has developed a set of Protocols for the Establishment of Exception Resource Value Wetlands Pursuant to the Freshwater Wetlands Protection Act (N.J.S.A. 13-9B-1 et seq.) Based on Documentation of State or Federal Endangered or Threatened Species (July 2002).

The data, while being used as a preliminary planning tool, are also being utilized to determine the potential presence of suitable threatened or endangered species habitat as well as in determining classification of exceptional resource value wetlands. As stated by the NJDEP, "freshwater wetlands delineated within habitat patches identified [by the NJDEP Landscape Project] as "critical wildlife habitat" will be considered to fall within "areas of documentation" for regulatory purposes. For the purposes of wetland classification, only levels 3, 4 or 5 will apply to regulations."

According to the NJDEP Landscape Project GIS data, the following habitat types are shown to be directly intersected by the proposed facility:

Habitat Type	Rank
Emergent Wetlands	3 – State Threatened 4 – State Endangered
Wetland Forest	3 – State Threatened
Upland Forest	3 – State Threatened
Grassland	3 – State Threatened

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It should be noted that the data represent only areas as suitable habitat for threatened or endangered animal species, not plant species. Habitat patches were either intersected directly by or immediately adjacent to the proposed facility have been mapped on the Environmental Constraints Maps. Only habitat patches with a rank of 3, 4 or 5 have been represented for purposes of clarity and potential regulatory effect. It should also be noted that habitat patches of rank 3, 4 or 5 are located in both upland and wetland areas. Landscape project data does not specify what species the specific patch is suitable for.

It is anticipated that due to the proximity of NJDEP Landscape Project mapped suitable habitat patches, as well as mapped NHP sites, the potential exists that the proposed improvements in off-road areas may impact some of these identified blocks. During final design, efforts will be taken to minimize disturbance in these regions.

### **4.2 NJDEP Natural Heritage Priority Sites**

An investigation was conducted to determine the presence or absence of NJDEP designated Natural Heritage Priority (NHP) Sites. These sites are recognized as good representative populations of State or Federal threatened or endangered flora or fauna. This data was created to identify the best habitats for rare plant and animal species and natural communities. NHP Sites contain some of the best and most viable occurrences of endangered and threatened species and natural communities, but they do not cover all known habitat for endangered and threatened species in New Jersey.

The proposed facility alignment intersects the following two (2) mapped NHP sites:

Site Name	Location	General Site Description
Seeleys Pond	Union	Dry mixed oak woods over traprock with several openings on the steeper slopes. This site contains known bog turtle habitat.
Kearny Marsh	Hudson	Remnant glacial lake wetlands complex which lies east southeast of the town of Kearny and is bordered by Conrail tracks to the south, west and north, and the New Jersey Turnpike to the east.

## **D. Historic Sites**

### **1. General Issues**

**TO BE COMPLETED UNDER FUTURE TASKS BY ORGANIZATIONS SPONSORING TRAIL DEVELOPMENT**

### **2. Buildings**

**TO BE COMPLETED UNDER FUTURE TASKS BY ORGANIZATIONS SPONSORING TRAIL DEVELOPMENT**

### **3. Bridges**

**TO BE COMPLETED UNDER FUTURE TASKS BY ORGANIZATIONS SPONSORING TRAIL DEVELOPMENT**

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### **4. Historic Districts**

**TO BE COMPLETED UNDER FUTURE TASKS BY ORGANIZATIONS SPONSORING TRAIL DEVELOPMENT**

### **E. Potential Hazardous Waste Sites**

#### **1. Existing Known Sites**

A preliminary hazardous materials screening has been performed for the entire project corridor to ascertain the presence or absence of sites of potential hazardous materials concerns as currently mapped by the NJDEP GIS as well as limited observations during field reconnaissance. See Figure 3, Sites of Potential Hazardous Materials Concerns.

A preliminary investigation was conducted using existing GIS information on Superfund sites within 150-feet of the proposed facility alignment. Two (2) sites are located within the specified search distance, however their potential impact on the proposed Greenway is undetermined at this time.

Site Name	Municipality	Site ID#
White Chemical Corp.	Newark City, Essex Co.	NJD060803475
Kin Buc Landfill	Edison Twp., Middlesex Co.	NJD980529044

According to the information in the NJDEP Known Contaminates Sites List Database (updated September 2001), there are approximately 72 sites within 150' of the proposed facility alignment. Of these 72 sites, 55 are currently listed as active (refer to the attached list of sites under Figure 3 - Sites of Potential Hazardous Materials Concern).

The Chromate Waste Sites database lists 7 sites within 150 feet of the proposed facility alignment. Chromate sites are properties that typically received fill material contaminated with chromate waste. Ground disturbance due to construction could potentially disturb any pollutants. The following table lists the potential chromate sites briefly:

Site Name	Responsible Party	Listed Status	Municipality
Grand Street #1	PPG	ATP	Jersey City
Grand Street #2	PPG	ATP	Jersey City
Grand Street #3	PPG	ATP	Jersey City
Garfield Avenue Site	PPG	ATP	Jersey City
Eastern Oil	Orphan	ATP	Jersey City
Allied Stockpile	Allied Directive	ATP	Jersey City
Roosevelt Drive-In	PPG	ATP	Jersey City

The NJDEP Classification Exception Areas (CEA) database lists sites with known groundwater pollution plumes. These properties have been granted a CEA for limiting use of the groundwater onsite or on adjoining parcels. There are nine (9) potential sites listed within 150-feet of the proposed facility alignment:

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<b>Site Name</b>	<b>Address</b>	<b>Municipality</b>	<b>Site ID</b>
Mobil Service Station #15-LYE	2084 Woodbridge Ave.	Edison Twp., Middlesex Co.	NJD986606101
Gulf Service Station Franklin Twp.	908 Easton Ave.	Franklin Twp., Somerset Co.	NJL000060921
Exxon Service Station #3-2582	3115 Woodbridge Ave.	Edison Twp., Middlesex Co.	NJD986599777
Holt Machinery Co.	35 High St.	Cranford Twp., Union Co.	NJC876012733
Federal Business Warehouse	320 Elizabeth Ave.	Newark City, Essex Co.	NJD986601532
Amoco Service Station #2064	235 12 <sup>th</sup> St.	Jersey City, Hudson Co.	NJL600025993
Shell Service Station	3080 John F Kennedy Blvd.	Jersey City, Hudson Co.	NJD986566149
Amerada Hess Corp. Station	Passaic & Harrison Aves.	Harrison Town, Hudson Co.	NJD982797532
First Rep Corp of America Fac	900 Passaic Ave.	E. Newark Boro, Hudson Co.	NJD107592826

While unlikely, given the at-grade nature of the proposed facility, project construction could potentially disturb contaminated sites or underground storage tanks, potentially creating hazardous conditions. Consequently, the exact extent and nature of any potential sites of concern should be confirmed through a more thorough site/case investigation once the final alignment has been identified.

### **2. Existing Suspect Sites due to Past Land Use Practices**

Several unlisted sites observed during limited field reconnaissance indicated the potential for hazardous materials concern. However, investigation into these areas has been limited to a "presence/absence" determination, based only upon certain observable indicators of prior land use practices. These indicators include evidence of industrial and/or manufacturing uses, potential landfills, certain commercial establishments (automotive repair shops, service stations, etc.) and/or remnants of potential solid hazardous materials (55 gallon drums). It is not known in this phase which of the initially identified sites may or may not become a concern.

### **3. Observable Evidence of Potential Contamination**

Evidence of environmental stress was also investigated during the limited field reconnaissance. These indicators included stressed vegetation, stained/discolored soils, piles of unidentified refuse and/or other solid wastes and unusual odors.

Field reconnaissance in the Historic Rail, Bergen Arches, Green Brook and Galloping Hill corridors identified several areas of potential contamination through observance of environmental stress indicators. The remaining sections of the proposed route have not been field investigated for potential environmental concerns at the time of this report.

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### **4. Railroads and Railyards**

Sections of the proposed East Coast Greenway are routed on the now unused NJ Transit Boonton Line through Hudson County, including the Historic Rail and Bergen Arches sections. These lines make use of corridors that have both tracked and non-tracked areas. No rail yards are anticipated to be impacted.

## **F. Socioeconomics**

### **1. General Issues**

Due to the nature of the East Coast Greenway, adverse effects due to implementation of the proposed facility are not anticipated. Land acquisition(s) are anticipated to be limited to rights-of-way and easement agreements, where necessary. At this phase, the taking of properties, parking stalls and buildings is not anticipated as part of this project.

It is not anticipated that any relocation or displacement of economically challenged individuals or minority groups shall occur due to construction of the proposed facility. As such, adverse impacts due to the construction of the facility are not anticipated.

### **2. Parking / Access Issues**

It is not anticipated that any loss of existing parking will occur. Access to the proposed facility will be determined during Phase 2. However, during this phase, initial consideration was taken as to areas for local access to the facility. Specific points have yet to be identified, and are anticipated to be accessed via the existing parks and roadway networks.

### **3. Farmland / Community Facilities**

It is not anticipated, during this phase, that any farmlands or community facilities will be negatively impacted through the implementation of the proposed trail. By the trail's nature, it is anticipated to provide a benefit to the communities it serves by providing a safe connection between parks, open space and recreation areas, residential communities and local points of interest.

## **III. SUMMARY**

This preliminary phase has identified several areas of environmental concern that may potentially be impacted by the proposed facility. However, given the preliminary nature of this study and of the alignment, final route selection and minor changes in routing of the facility may be made during the next phase to avoid major impacts to the environment. During final design, efforts should be taken to minimize disturbance in areas identified as being environmentally sensitive (known threatened and endangered species habitat).

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## Phase I - Regional Environmental Constraints Map

Map Developed By:



August, 2003

This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by the NJDEP and is not State-authorized.

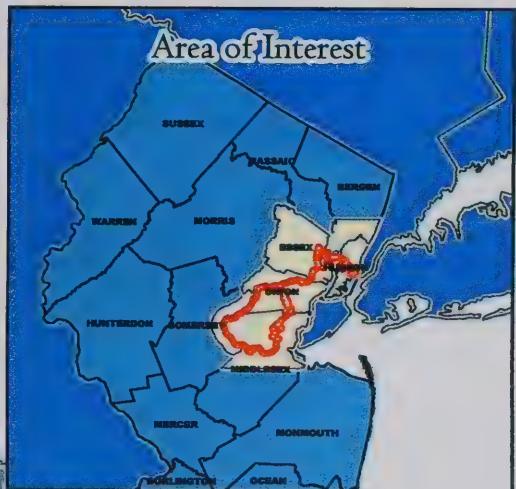


MORRIS

SOUTH BRUNSWICK TWP

EAST BRUNSWICK TWP

PASSAIC



**NJDEP Natural Heritage Priority Sites** are recognized as good representative populations of State or Federal threatened or endangered flora or fauna. This data was created to identify the best habitats for rare plant and animal species and natural communities. NJEP Sites contain some of the best and most viable occurrences of endangered and threatened species and natural communities, but they do not cover all known habitat for endangered and threatened species in New Jersey.

**NJDEP Mapped Wetlands** are a graphical representation of wetlands data and it contains all the tidal and non-tidal wetlands as of 1996. This data is intended to serve as a resource for analysis rather than regulatory delineations. The NJDEP may change the dataset based on more in-depth analysis and field inspection for regulatory purposes.

**NJDEP Identified Golf Courses** represents the fairways, greens and tee areas of most of the golf courses in New Jersey. There are 380 courses identified and 103 polygons (many courses share or discontinuous polygons because interproprietor areas are separated by tracks of wetland, forest or other land covers). Residential (1 acre or more) tracts of forest or wetlands are not included in a course's polygons, although these areas may be owned by the golf course.

**Parks, Recreation and Other Open Spaces** data were taken from a variety of sources including, but not limited to Planning Areas of the New York City State Department of Parks, Recreation and Tourism (Planning Areas), Land Information Center GIS coverage (1996, 1996/97 datasets) for Bergen, Essex, Hudson, Middlesex and Union Counties (all recreation identified parcels) and Environmental Research Systems Institute (ERSI) provided data for New York and New Jersey.

**USGS Mapped Floodprone Areas** data represents both state-owned, protected open spaces and recreation areas as well as federally owned and protected open space and recreation areas (and military parcels containing large tracts of undeveloped land), under supply commitment areas (military), recreation areas, and recreation areas in New Jersey. These areas are those providing floodwater detention capacity. NJDEP Land Use/Land Cover data includes both identified parks (such as baseball fields, tennis courts, basketball courts). These may be associated with schools, industrial and commercial firms, or a community housing development.



### Area of Investigation

### Potential Routes by Segment Type

- Offroad
- Onroad
- Hudson River Walkway
- East Coast Greenway Route
- Liberty to Water Gap Trail
- Gateway Utility Trail
- Existing Onroad
- Existing Offroad
- Proposed Onroad
- Proposed Offroad
- Programmed Onroad
- Programmed Offroad
- NJ Transit Rail Station

### Legend

- |                                       |   |
|---------------------------------------|---|
| NJ Transit Rail Corridors             | NJDEP Mapped Lakes and Ponds            |
| Undifferentiated Freight Lines        | NJDEP Mapped Streams and Rivers         |
| <b>Major Roads</b>                    |   |
| Interstate                            | Parks, Recreation and Other Open Spaces |
| State Hwy                             | Potential T&E Emergent Habitat          |
| US Route                              | Potential T&E Wetland Forest Habitat    |
| NJDEP Natural Heritage Priority Sites | Potential T&E Upland Forest Habitat     |
| NJDEP Identified Golf Courses         | Potential T&E Grassland Habitat         |
| NJDEP Mapped Wetlands                 | Municipal Borders                       |
| <b>USGS Mapped Floodprone Areas</b>   |   |
| Documented Areas                      | County Boundaries                       |
| Undocumented Areas                    | New York City, Staten Island            |
|                                       | Hackensack Meadowlands District         |

5

2.5

0

5

Miles

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### **4. Railroads and Railyards**

Sections of the proposed East Coast Greenway are routed on the now unused NJ Transit Boonton Line through Hudson County, including the Historic Rail and Bergen Arches sections. These lines make use of corridors that have both tracked and non-tracked areas. No rail yards are anticipated to be impacted.

## **F. Socioeconomics**

### **1. General Issues**

Due to the nature of the East Coast Greenway, adverse effects due to implementation of the proposed facility are not anticipated. Land acquisition(s) are anticipated to be limited to rights-of-way and easement agreements, where necessary. At this phase, the taking of properties, parking stalls and buildings is not anticipated as part of this project.

It is not anticipated that any relocation or displacement of economically challenged individuals or minority groups shall occur due to construction of the proposed facility. As such, adverse impacts due to the construction of the facility are not anticipated.

### **2. Parking / Access Issues**

It is not anticipated that any loss of existing parking will occur. Access to the proposed facility will be determined during Phase 2. However, during this phase, initial consideration was taken as to areas for local access to the facility. Specific points have yet to be identified, and are anticipated to be accessed via the existing parks and roadway networks.

### **3. Farmland / Community Facilities**

It is not anticipated, during this phase, that any farmlands or community facilities will be negatively impacted through the implementation of the proposed trail. By the trail's nature, it is anticipated to provide a benefit to the communities it serves by providing a safe connection between parks, open space and recreation areas, residential communities and local points of interest.

## **III. SUMMARY**

This preliminary phase has identified several areas of environmental concern that may potentially be impacted by the proposed facility. However, given the preliminary nature of this study and of the alignment, final route selection and minor changes in routing of the facility may be made during the next phase to avoid major impacts to the environment. During final design, efforts should be taken to minimize disturbance in areas identified as being environmentally sensitive (known threatened and endangered species habitat).

# East Coast Greenway, Northern NJ Route Location Study

## Phase I - Regional Environmental Constraints Map



This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by the NJDEP and is not State-authorized.



MORRIS

PASSAIC

MANHATTAN

BROOKLYN

STATEN ISLAND

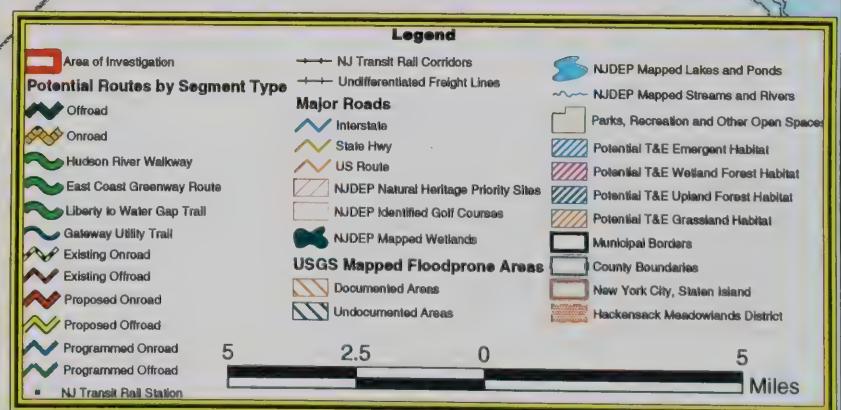


NJDEP Natural Heritage Priority Sites are recognized as good representative populations of state or Federal threatened or endangered flora or fauna. This data is provided to help identify potential locations for the proposed corridor and related infrastructure. Other indicator species of the local and national status, occurrence of endangered and threatened species and natural communities, but they do not cover all known habitat for endangered and threatened species in New Jersey.

NJDEP Mapped Wetlands are a graphical representation of wetland data and information from the state and national inventories as of 1996. This data is provided to help identify potential locations for the proposed corridor. The NJDEP may change the boundaries based on more in-depth analysis and field inspection for regulatory purposes.

NJDEP Identified Golf Courses represent the legacy, green and tee areas of most of the golf courses in New Jersey. There are 359 courses identified and 620 polygons (many overlapping) show or delineate polygon boundaries. Information provided is the location of the course, name, address, and contact information. Although some courses may be owned by a county or municipality, although these areas may be referred to as "public" golf courses.

NJDEP Mapped Open Space data represents both state-owned, protected open space and recreation areas as well as federally owned and protected open space and recreation areas (and privately protected land made of undeveloped land), state supply reservoirs, and other areas of natural resources. These areas are located in New Jersey. These categories, though providing statewide data, are incomplete. NJDEP Land Utilized Data includes both identified parks, non-irrigated fields, state facilities, state-owned lands, those areas to be developed with natural, cultural, commercial, or a community focus, and areas that have been developed.





# East Coast Greenway, Northern NJ Route Location Study

## Phase 1 - Environmental Constraints Map

### Enlargement of Typical Area

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August, 2003

BERKELEY HEIGHTS TWP

MOUNTAINSIDE BORO

SPRINGFIELD TWP

US Route 22

US Route 22

US

Route

22

Kenilworth Boro

UNION TWP

HILLSIDE TWP

ELIZABETH CITY

WESTFIELD TOWN

State Route 28 WB

State Routes 28 ES

GARWOOD BORO

FANWOOD BORO

ROSELLE PARK BORO

ROSELLE BORO

State Route 22

US Route 1 and 9

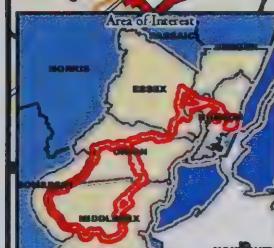
1-278

1-278

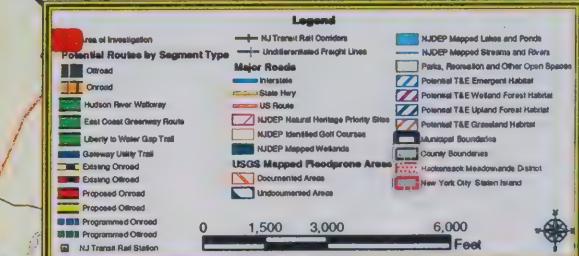
WINFIELD TWP

CLARK TWP.

RAHWAY CITY



**NJDEP Natural Heritage Priority Sites**  
Bog Iron Ore  
Cattail  
Chestnut Oak  
Common Milkweed  
Dwarf Goldenrod  
Everbright's Sedge  
Fragrant Sumac  
Giant Hogweed  
Horned Cattail  
Laceleaf Fern  
Meadow Sedge  
Milkweed  
Mountain Laurel  
Narrowleaf Cattail  
Northern Highbush Cranberry  
Obedient Plant  
Purple Coneflower  
Red Maple  
Shrub Dogwood  
Tall Goldenrod  
Yellow Aster  
  
**NJDEP Mapped Wetlands**  
Bog Iron Ore  
Cattail  
Chestnut Oak  
Common Milkweed  
Dwarf Goldenrod  
Everbright's Sedge  
Fragrant Sumac  
Giant Hogweed  
Horned Cattail  
Laceleaf Fern  
Meadow Sedge  
Milkweed  
Mountain Laurel  
Narrowleaf Cattail  
Northern Highbush Cranberry  
Obedient Plant  
Purple Coneflower  
Red Maple  
Shrub Dogwood  
Tall Goldenrod  
Yellow Aster  
  
**USGS Mapped Flood-prone Areas**  
Bog Iron Ore  
Cattail  
Chestnut Oak  
Common Milkweed  
Dwarf Goldenrod  
Everbright's Sedge  
Fragrant Sumac  
Giant Hogweed  
Horned Cattail  
Laceleaf Fern  
Meadow Sedge  
Milkweed  
Mountain Laurel  
Narrowleaf Cattail  
Northern Highbush Cranberry  
Obedient Plant  
Purple Coneflower  
Red Maple  
Shrub Dogwood  
Tall Goldenrod  
Yellow Aster  
  
**Documented Areas**  
Bog Iron Ore  
Cattail  
Chestnut Oak  
Common Milkweed  
Dwarf Goldenrod  
Everbright's Sedge  
Fragrant Sumac  
Giant Hogweed  
Horned Cattail  
Laceleaf Fern  
Meadow Sedge  
Milkweed  
Mountain Laurel  
Narrowleaf Cattail  
Northern Highbush Cranberry  
Obedient Plant  
Purple Coneflower  
Red Maple  
Shrub Dogwood  
Tall Goldenrod  
Yellow Aster  
  
**Undocumented Areas**





*East Coast Greenway, Phase 1, Northern Route Location Study*  
*Draft Preliminary Environmental Screening*

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**Figure 2**  
**Photographs and Descriptions**



**PHOTO #1 - Facility proposes to utilize unused NJ Transit Boonton Line rail corridor.**  
*Typical example of corridor in Kearny, Hudson County.*



**PHOTO #2 – Elevated view of unused NJ Transit Boonton Line rail corridor in Kearny,**  
*Hudson County.*

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**Draft Preliminary Environmental Screening**

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**PHOTO #3 – Facility also proposes to utilize existing sidewalk for onroad areas. Typical sidewalk within Harrison, Hudson County.**



**PHOTO #4 – Potential floodplain issues along some offroad sections. Proposed improvements in this area would be limited to at-grade construction.**

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***Draft Preliminary Environmental Screening***

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**PHOTO #5 – Potential access issues along the Green Brook section. Easements may potentially be required to accommodate the proposed facility on private lands.**



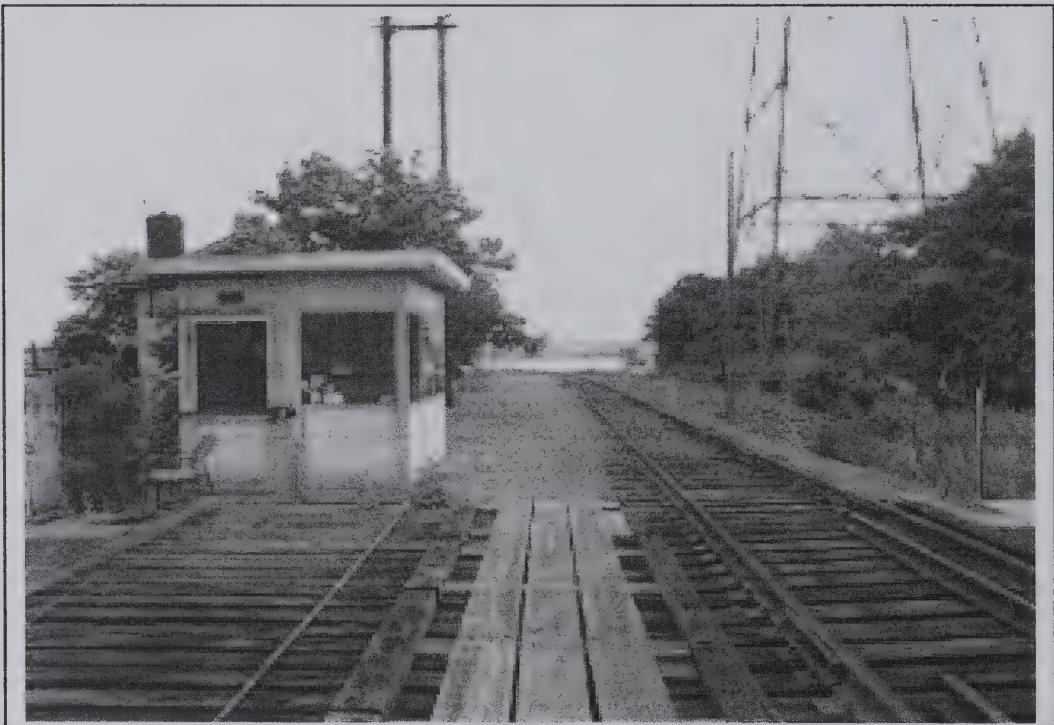
**PHOTO #6 – Typical example of areas where existing paths may be utilized to minimize impacts to parks and public open space by construction of new trail/facilities.**

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*Draft Preliminary Environmental Screening*

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**PHOTO #7 – Potential floodway issues should the facility be routed under the bridge to avoid conflicts with constricted roadway widths over bridges.**



**PHOTO #8 – Typical example of routing the proposed facility on unused railroad corridors.**

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***PHOTO #9 – Unused NJ Transit Boonton Line, Hackensack Meadowlands.***



***PHOTO #10 – Proposed alignment of Greenway through the Bergen Arches.***

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*Draft Preliminary Environmental Screening*

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**Figure 3**  
**Sites of Potential Hazardous Materials Concern**

The following information has been taken directly from the NJDEP Site Remediation Program's web page regarding sites listed on the National Priority List (NPL or Superfund list). Information regarding the 72 sites listed on the Known Contaminated Sites List found within approximately 150-feet of the proposed facility alignment is located in table form behind the Superfund site information.

**White Chemical Corporation**

<b>660 Frelinghuysen Avenue</b>	<b>Newark City</b>	<b>Essex County</b>
BLOCK: 3782	LOT: 109	
CATEGORY: Superfund Federal Lead	TYPE OF FACILITY: Chemical Manufacturing	
	OPERATION STATUS: Inactive	
PROPERTY SIZE: 4.4 Acres	SURROUNDING LAND USE: Industrial/Residential	
MEDIA AFFECTED Ground Water	CONTAMINANTS Volatile Organic Compounds Metals Cyanide	STATUS Delineating
Soil	Volatile Organic Compounds Semi-Volatile Organic Compounds Metals	Delineating
Building Interiors	Semi-Volatile Organic Compounds Pesticides Polychlorinated Biphenyls (PCBs) Lead Asbestos	Delineating
<b>FUNDING SOURCES</b> Superfund Spill Fund	<b>AMOUNT AUTHORIZED</b> \$14,900,000 \$773,000	

# **East Coast Greenway, Phase 1, Northern Route Location Study**

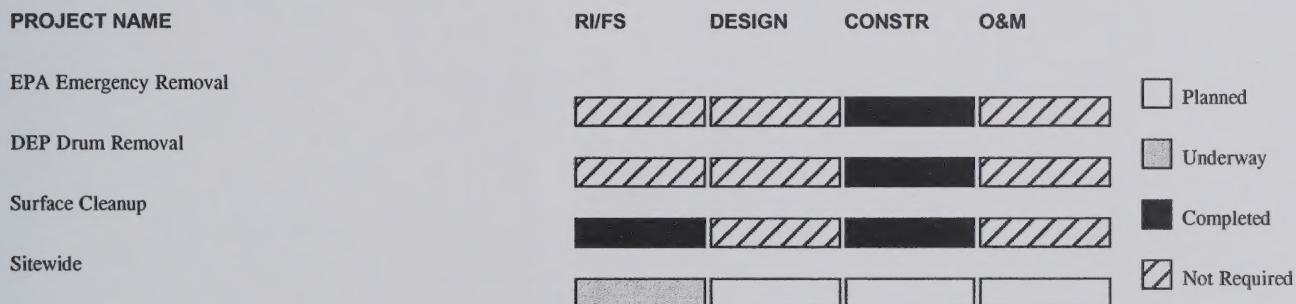
## **Draft Preliminary Environmental Screening**

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### **SITE DESCRIPTION/RESOLUTION OF ENVIRONMENTAL CONCERNS:**

White Chemical Company manufactured acid chlorides and flame retardant compounds at this facility between 1983 and 1990. The site is located in a heavily populated and industrialized area of Newark. More than 9,000 55-gallon drums, approximately two hundred tanks and vats, and two laboratories containing thousands of laboratory materials were stored at the facility while it was in operation. The drums and other containers of chemicals were in various stages of deterioration, fuming and leaking onto the soil. NJDEP issued a Spill Act Directive to White Chemical in 1990 that required the company to conduct remedial activities at the site but the company did not respond to the Directive. NJDEP conducted an Interim Remedial Measure later that year to remove more than 1,000 drums containing flammable compounds. USEPA subsequently conducted an Emergency Removal Action to dispose of drums and other hazardous materials that remained at the site. USEPA added the former White Chemical facility to the National Priorities List of Superfund sites (NPL) in 1991.

In 1991, USEPA issued a Record of Decision (ROD) with NJDEP concurrence that required removal of the remaining surface materials (tanks, vats, laboratory containers and other vessels). A group of Potentially Responsible Parties (PRPs) for the site completed the actions required in the ROD in 1993 under a Unilateral Administrative Order with USEPA. Approximately 7,800 drums of waste, 4,500 empty drums, the contents of 190 tanks and vessels and almost 15,000 laboratory containers were removed from the site during the three removal actions performed by NJDEP, USEPA and the PRPs between 1990 and 1993. USEPA began a Remedial Investigation and Feasibility Study (RI/FS) in 1998 to determine the nature and extent of the contamination in the soil, ground water and building interiors and evaluate cleanup alternatives. USEPA will use the findings of the RI/FS to select the appropriate remedial actions to address these media, which will be specified in one or more RODs for the site.



### **Sites Transferred From Division of Publicly Funded Site Remediation to Division of Responsible Party Site Remediation**

The following site is where remedial work (e.g., Remedial Investigation/ Feasibility Study, Remedial Design or Remedial Action) was conducted with public funds or administered by NJDEP or USEPA before responsible parties agreed to complete the remaining remedial activities required with NJDEP or USEPA oversight.

Kin Buc Landfill

Edison Township

Middlesex

Superfund



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